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OLDEST BEE PAPER IN AMERICA

THE WEEKLY BEE JOURNAL

ESTABLISHED IN 1861

DEVOTED TO THE INTERESTS OF HONEY PRODUCERS.

ESTABLISHED IN 1861.

Chicago, Ill., July 23, 1884.

VOL. XX.—No. 30.

THE WEEKLY EDITION

OF
THE AMERICAN BEE JOURNAL

PUBLISHED BY
THOMAS C. NEWMAN,
EDITOR AND PROPRIETOR.

925 WEST MADISON ST., CHICAGO, ILL.
Weekly, \$2 a year; Monthly, \$1.

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THOMAS G. NEWMAN,

925 West Madison Street., Chicago, Ill.

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☞ We can supply photographs of Rev. L. L. Langstroth, the Baron of Berlepsch, or Dzierzon, at 25 cts. each.

☞ The Gibson County Bee-Keepers' Association, will meet at Trenton, Gibson Co., Tenn., on Aug. 2, 1884. A good attendance is expected.

T. J. HAPPELL, Sec.

J. W. HOWELL, Pres.

☞ The meeting of the Bee-Keepers' Association of Northeastern Kentucky, will be held in the city of Covington, Walker's Hall, on Aug. 13, 1884.

G. W. CREE, Sec.

THE AMERICAN
BEE JOURNAL

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The Weekly Bee Journal.....	\$2 00..
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Bees and Honey (T.G. Newman) cloth 3 00..	2 75
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Honey as Food & Medicine, 100 Copies	4 50.. 4 25
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and Gleanings in Bee-Culture (A.L. Root) 3 00..	2 75
Bee-Keepers' Magazine (A.J. King) 3 00..	2 75
Bee-Keepers' Guide (A.G. Hill).....	2 50.. 2 35
Kansas Bee-Keeper.....	3 00.. 2 75
The Apiculturist, (Silas M. Locke) ..	3 00.. 2 75
British Bee Journal.....	3 75.. 3 50
The 7 above-named papers.....	8 25.. 7 00

The Monthly Bee Journal and any of the above, \$1 less than the figures in the last column.

☞ Constitutions and By-Laws for local Associations \$2.00 per 100. The name of the Association printed in the blanks for 50 cents extra.

☞ Sample Copies of the AMERICAN BEE JOURNAL will be sent free to any person. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office.

ELECTROTYPES

Engravings used in the Bee Journal for sale at 25 cents per square inch—no single cut sold for less than 50c.
THOMAS G. NEWMAN,
925 West Madison Street Chicago, Ill.

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We guarantee every inch of our Foundation equal to sample in every respect.

CHAS. DADANT & SON,

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The prices of Comb Foundation are NOW advanced two cents per pound from the quotations in our retail Price List, and three cents, per pound, at wholesale.

CHAS. DADANT & SON,

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PATENTED, MAY 20, 1878.

The Original
**BINGHAM
Bee Smoker**



Patented, 1878.

Prof. Cook, in his valuable Manual of the Apiary, states that "Mr. Bingham was the first to improve the old Quinby smoker by establishing a direct draft." Five years of persistent effort has demonstrated that no one but Bingham has been able to improve a Bingham smoker. Hundreds of Bingham smokers have been in use five years, and are yet in working order. They burn lots of blocks and chips and stuff, and make lots of smoke and comfort, and have no dampers or match-box attachments, as they never go out or fail to blow smoke up or down or sideways, much or little, swift or slow, just as you please, any or all the time; top up or down, they always go!

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For mail rates and testimonials, send card. To sell again, send for dozen rates to

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On dozen or half-dozen lots of one kind, we allow 25 per cent. discount, and prepay postage. Special rates on larger quantities, given upon application.

Bees and Honey, or Management of an Apiary for Pleasure and Profit, by THOMAS G. NEWMAN.—It is "fully up with the times," in all the various improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most honey in its best and most attractive condition. It embraces the following subjects:—Ancient History of Bees and Honey—Locating an Apiary—Transferring—Feeding—Swarming—Dividing—Extracting—Queen Rearing—Introducing Queens—Italianizing—Bee Pasturage a Necessity—Quietening and Handling Bees—The Management of Bees and Honey at Fairs—Marketing Honey, etc. 220 profusely-illustrated pages. Price, bound in cloth, \$1.00; 2 copies for \$1.80; 3 copies for \$2.55; 5 for \$4.00; 10 for \$7.50. Paper covers, 75 cents; 2 copies for \$1.40; 3 copies for \$2.00; 5 for \$3.00; 10 for \$5.00.

The Apiary Register, by THOMAS G. NEWMAN.—A Record and Account Book for the Apiary, devoting 2 pages to each colony, ruled and printed, and is so arranged that a mere glance will give its complete history. Strongly bound in full leather. Price, for 50 colonies, \$1.00; for 100 colonies, \$1.25; for 200 colonies, \$1.50.

Honey as Food and Medicine, by THOMAS G. NEWMAN.—It gives the various uses of Honey as Food; recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc. Also, Honey as Medicine, with many valuable recipes. It is intended for consumers, and should be liberally scattered to help in creating a demand for honey. Price, for either the English or German edition, 5 cents—one dozen, 40 cents—100 for \$2.50—500 for \$10.00—1,000 for \$15.00.—If 100 or more are ordered, we will print the bee-keeper's card (free of cost) on the cover.

Bee-Keepers' Convention Hand Book, by THOMAS G. NEWMAN.—It contains a simple Manual of Parliamentary Law and Rules of Order for the guidance of officers and members of Local Conventions—Model Constitution and By-Laws for a Local Society—Programme for a Convention, with Subjects for discussion—List of Premium for Fairs, etc. Bound in cloth, and suitable for the pocket. Price, 50 cents.

Why Eat Honey? by THOMAS G. NEWMAN.—This Leaflet is intended for distribution in the Bee-keeper's own locality, in order to create a Local Market. Price, 50 cents per 100; 500 copies for \$2.25; 1,000 copies for \$4.00. When 200 or more are ordered at one time, we will print the honey-producer's name and address FREE, at the bottom. Less than 200 will have a blank where the name and address can be written.

Preparation of Honey for the Market, including the production and care of both Comb and Extracted Honey, and Instructions on the Exhibition of Bees and Honey at Fairs, etc., by THOMAS G. NEWMAN. This is a chapter from "Bees and Honey." Price, 10c.

Swarming, Dividing and Feeding Bees.—Hints to Beginners, by THOMAS G. NEWMAN. A chapter from "Bees and Honey." Price 5c.

Bee Pasturage a Necessity, by THOMAS G. NEWMAN.—Progressive views on this important subject; suggesting what and how to plant.—A chapter from "Bees and Honey." 28 engravings. Price, 10c.

Bees in Winter, by THOMAS G. NEWMAN.—Describing Chaff-packing, Cellars and Bee-Houses. A chapter from "Bees and Honey." Price 5c.

Bienen Kultur, by THOMAS G. NEWMAN.—In the German language. Price, in paper covers, 40 cents, or \$3 per doz.

Bee-Keepers' Guide, or Manual of the Apiary, by PROF. A. J. COOK.—It is elegantly illustrated, and fully up with the times on every subject that interests the bee-keeper. It is not only instructive, but interesting and thoroughly practical. It comprises a full delineation of the anatomy and physiology of Bees. Price, \$1.25.

Quinby's New Bee-Keeping, by L. C. ROOT.—Its style is plain and forcible, making its readers realize the fact that the author is master of the subject. Price, \$1.50.

A B C of Bee-Culture, by A. I. ROOT.—Embraces everything pertaining to the care of the Honey-Bee, and is valuable to the more advanced bee-keeper, as well as the beginner. Cloth, \$1.25; paper, \$1.

Blessed Bees, by JOHN ALLEN.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Price, 75c.

The Hive and Honey-Bee, by REV. L. L. LANGSTROTH.—This is the work of a master, and will always remain a standard. Price, \$2.00.

Dzierzon's Rational Bee-Keeping.—A translation of the master-piece of that most celebrated German authority. Price, bound in cloth, \$2.00; in paper covers, \$1.50.

Queen-Rearing, by HENRY ALLEY.—A full and detailed account of 23 years experience in rearing Queen Bees. The cheapest, easiest and best way to rear Queens, etc. Price, \$1.00.

Bee-Keepers' Text Book, by A. J. KING.—A new edition, revised and enlarged. Price, \$1.00, bound in cloth.

Extracted Honey; Harvesting, Handling and Marketing.—By CHAS. DADANT & SON.—Details their management. Price, 15c.

Practical Hints to Bee-Keepers, by CHAS. F. MUTH.—Gives his views on the management of bees. Price, 10c.

Dzierzon Theory.—The fundamental principles of Dzierzon's system of apiculture as set forth by Berlepsch. It was translated by the late Samuel Wagner. Price, 15c.

Dictionary of Practical Apiculture, by PROF. JOHN PHIN.—This gives the correct meaning of nearly 500 apicultural terms. Price, bound in cloth, 50c.

The Hive I Use, by G. M. DOOLITTLE.—Price 5c.

Foul Brood, by A. R. KOHNKE.—Its origin and cure. Price, 25c.

Moore's Universal Assistant, and Complete Mechanic.—Contains over 1,000,000 industrial facts, calculations, processes, trade secrets, legal items, business forms, etc. Price, \$2.50.

Kendall's Horse Book.—No book can be more useful to horse owners. It has 35 engravings, illustrating positions of sick horses, and treats all diseases in a plain and comprehensive manner. It has many good recipes, etc. Price, 50c., in either English or German.

Food Adulteration.—What we eat and should not eat. This book should be in every family. Price, 50c.

Scribner's Lumber and Log Book.—Gives measurement of all kinds of lumber, logs and planks; wages, rent, etc. Price, 35c.

Fisher's Grain Tables.—For estimating up the price of grain, produce and hay; wood measurer, ready reckoner, tables for plowing, etc. Price, 40c.

Hand-Book of Health, by Dr. Foote. Rules for eating, drinking, sleeping, bathing, working, dressing, etc. Price, 25c.

Emerson Binders, made especially for the BEE JOURNAL, and lettered in gold on the back. 75c. for the Weekly; or for the Monthly, 50c. They cannot be sent by mail to Canada.

Constitution and By-Laws, for local Associations, \$2 per 100. The name of the Association printed in the blanks 50c. extra.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, 10c. each, or \$8 per 100.

Weekly Bee Journal.

DEVOTED TO THE INTERESTS OF THE PRODUCERS OF HONEY.

VOL. XX.

CHICAGO, ILL., JULY 23, 1884.

No. 30.

THE AMERICAN BEE JOURNAL

Published every Wednesday, by

THOMAS G. NEWMAN,
EDITOR AND PROPRIETOR.

Work Up the Local Markets.

Do not fail to try to work up the local markets for honey. This not only helps to increase consumption, but also adds to the profits of the honey producer—by obtaining a larger price at retail than by selling it at bulk to middle-men in large commercial centres. By saying this we are in no way underrating the valuable services of wholesale merchants in cities, for there is always enough comes to such places to stock that market, and by selling more at retail, it will keep from overstocking such markets, and thereby depreciating the salable value of the product.

We can do the producers no better service, therefore, than to advise them to work up the markets in their own immediate neighborhoods. To do this, get some "Leaflets," or "Honey as Food and Medicine," with the producer's name and address printed on them, and scatter them over the territory that can be supplied. Try this plan, and see how it will astonish you by its results.

We have received a very nice sample of one-pound dovetailed section for honey from Julius Tomlinson, Allegan, Mich., and placed in the Museum.

We have just issued a new edition of Doolittle's "Hive I Use," to which is now added a detailed statement of his system of management for producing comb honey in the largest quantity and best quality, and how to put it up in the most desirable manner for the market. It contains 16 pages, and the price is 5 cents.

Missouri's Honey and Bee Show.

We have received the Premium List of the Inter-State Exposition at St. Joseph, Mo., to be held Sept. 1-6, 1884. We notice that Mr. E. T. Abbott is the Superintendent of the Bee and Honey department. With the following liberal list of premiums, there ought to be a very large bee and honey show:

	1st	2d
	Pr.	Pr.
Best colony of Italian bees.....	\$10	\$5
Best colony of Carniolan bees.....	10	5
Best colony of Syrian bees.....	10	5
Best colony of native bees.....	5	3
Best display of imported queens.....	10	5
Best display of queens reared by exhibitor, and with progeny.....	10	5
Best display of the habits and economy of a colony of bees.....	10	5
Best display of honey in comb, not less than 75 lbs.....	10	5
Best display of extracted honey not less than 50 lbs.....	10	5
Best display of honey in various and fancy forms.....	10	5
Best display of beeswax.....	2	1
Best display of honey-producing plants, including stalks, flowers and seeds, all labelled with name.....	5	3
Finest bouquet of honey plants.....	2	1
Best comb-foundation machine, to be operated on the ground.....	10	5
Best honey extractor.....	3	2
Best wax extractor.....	2	1
Best bee-smoker.....	Diploma	
Best section box for comb honey.....	Diploma	
Best comb foundation.....	Diploma	
Best bee veil.....	Diploma	
Best honey knife.....	Diploma	
Best keg for extracted honey.....	Diploma	
Best bee feeder.....	Diploma	
Best queen cage.....	Diploma	
Best drone trap.....	Diploma	
Best display of apicultural literature.....	5	3
Best hive for manipulation, procuring comb and extracted honey and winter protection.....	10	5

Mr. William P. J. Gerow, of Patterson, N. Y., died on April 21, 1884, aged 23 years. He was a successful and progressive bee-keeper, and will be missed in that locality.

German Bee-Keepers will be pleased to know that we have just issued a new and enlarged edition of our pamphlet on Bee-Culture, in German. It is revised and brought down to the present time, in all the developments of our rapidly-advancing pursuit. The Price being only 40 cents, it is within the reach of every German bee-keeper, and should be in the hands of all.

Letters for publication must be written on a separate piece of paper from items of business.

The Clover Harvest, etc.

The Indiana Farmer of last week contains the following concerning the clover honey harvest, and the care of bees and honey at this season of the year, as well as how to protect honey from the ravages of the moth:

The white honey harvest for this season is over. Though the flow was good while it lasted, the crop secured will be small, compared with that of last year. Bees suffered badly during the month of May, leaving them in poor condition at the commencement of the harvest. Brood combs, but poorly filled with brood, gave too much space below, in which to store honey, producing ill results especially where comb honey was the object, leaving many sections in the hives only partially filled. Should the fall flow of honey prove good, many of these may be finished, but not in the most desirable shape.

In most localities there is a dearth of honey-producing flora, from now until about the middle of August, when the fall bloom may bring a good yield. As the white clover yield ceases, bees are easily excited to robbery, and care should be taken to protect weak colonies or nuclei by reducing the size of the entrance, making it adequate to the force defending it. All work done in apiary should be carefully done, and all judicious care taken to prevent robbing. Prevention may be easily accomplished, but should they once get a start, it is sometimes very difficult to stop them.

Comb honey that has been removed from the hives, should be examined every few days. If the comb shows signs of worms, the honey must be fumigated with sulphur. Care must be taken not to give them too much, or it will discolor the comb, giving it a greenish cast. The amount used will depend, of course, on the size of the room or the box used. It requires but very little of the fumes of sulphur to destroy life, either animal or vegetable. Sulphur will not destroy the eggs, so it may be necessary to give them a second dose after all the eggs have had time to hatch. By watching closely, you will be able to discover the worms before they have done any material damage. They are very small at first, but you will detect their presence by seeing a small, thread-like streak of a mealy looking substance, on the capping or round the edge of the combs.

Natural Swarming

Translated from the French *Ami du Clerge* for the *Haldimand Advocate*.

In the majority of cases, the swarm will alight on the branch of a tree, on a hedge, or fence, where it will cluster, assuming the shape of a cluster of grapes. If no trees are in the vicinity of the hive, plant therein two or three branches. The hive that is to receive the swarm should be very clean. If it is an old one, it is wise to burn under it some straw to destroy the little insects that have nestled in it. The interior of the hive might also be rubbed with some odoriferous plant or flowers, such as the thyme, the rose, or with a cloth moistened with salt water. But, should the hive be clean, these precautions are not necessary. As soon as the bees have clustered, busy yourself to secure them, for fear they may escape.

SECURING THE SWARM.—There are situations in which that operation is very easily performed, others when it meets certain difficulties; let us speak of the principal ones. As soon as the swarm has alighted, put on your veil and make yourself ready to secure it. If it is fixed to a low and flexible branch, with one hand hold the opening of the hive under the swarm, with the other shake smartly the branch to cause the bees to fall into the hive. Immediately after, upset gently the hive and place it on the platform to facilitate the means of ingress. Disturbed by this operation, some of the bees will fly out again and return to the branch. They seem as if they would all escape. In that case smoke the bees remaining on the branch, and also those on the alighting-board which tarry to return. You may also replace the smoking by putting, where the bees are, some herbs of a strong odor disagreeable to the bees. In a quarter of an hour, all the bees have returned to the hive, and then you put it in its place without any anxiety concerning the few bees that may fly around the hive. They will work that very day. If you were to wait until the evening, they would for a few days flutter around the place where the hive was first placed.

If the swarm fixes itself to the trunk of a tree, with one hand hold the hive near them, and with the other, with the help of a brush or a feather-broom, softly and swiftly sweep all the bees into the hive. The capital point in all these operations is to secure the queen.

If the hive is difficult to handle, place it on the platform, but raised at the front a few inches with sticks or blocks: then with a shallow box or net secure the bees with the brush or soft broom and upset them gently at the opening of the hive into which they will immediately enter. If your hive is the Langstroth, take off the cover and put the bees into it, place in some section frames and some brood from other hives, and if possible, put the cover on and the operation is completed. Of course there are circumstances which may cause you to alter

the way of securing the bees. A skillful bee-keeper will easily overcome such difficulties.

To estimate properly the value of a swarm, first weigh the empty hive and note it on a conspicuous part of the hive or on a register in which are inscribed numbers corresponding to those of your hives. In the evening or the next morning, weigh the hive with the bees; if its weight is four pounds over the weight of the empty hive, your swarm is sufficiently strong, especially if it is one of the early ones. Toward the end of swarming time and in countries where flowers are scarce, the weight of the swarm should be from five to six pounds. Under that weight, the swarm should be increased by division. As the bees leave the hive, to swarm, they fill themselves with honey sufficient for at least three days sustenance; they are therefore heavier then than at ordinary times. Two pounds of bees filled with honey contain about 9,500; at other times in the same weight of bees, there should be nearly 11,000.

Is it possible to know wherefrom came the swarm, in case of dispute between two bee-keepers, each claiming it as his own?

Yes, this is the means to find it out. Take from a swarm where it has alighted, some fifty bees into a glass in which you shall have put two or three pinches of flour. Go thence a distance of three hundred yards and let the bees go. As a certain number will then return to their old hive, watch and it will be easy to recognize them by their bodies sprinkled with flour. This will clearly prove who is the owner of the swarm.

To what cause must be attributed the returning of the swarms or their dispersing in all directions?

Sometimes rain or a great wind will force the swarm to return, or oftener, the fall of the queen to the ground, where she loses her way, or wanders away from the swarm. Then the swarm returns, but not before it has searched everywhere with great anxiety for the queen.

One looking at such a swarm can easily guess that something is missing. In such a case, search carefully in front of the hive, and you will find the queen crawling among the grass where she fell, or struggling to free herself from some snare in which she may be held a prisoner.

What is to be done in case two or more colonies swarm at the same time and cluster together?

Be very careful not to separate them, since all profit of the bee-keepers consist in strong colonies. However, as in everything, excess is bad; should four or five swarms unite, you may divide them into two or three colonies and pick out the queens separately to give one of them to each colony.

A Canadian wishes us to state in the *BEE JOURNAL*, whether we take Canadian money for subscription or books. We do; and for fractions of a dollar, Canadian postage stamps may be sent.

Adulteration a Curse.

The following taken from the *Northwestern Grocer*, shows more forcibly the general feeling among traders concerning adulterations than anything which has been written for some time upon the subject:

Few men are so destitute of conscientiousness as not to feel, in their inmost soul, a sense of shame and wrong-doing when they adulterate goods of any kind; but especially when they offer to their fellows as food and drink what they have corrupted, defiled, debased, contaminated, vitiated. They may say, when pushed to the wall, "the food and drink we offer is pleasant to the eye, grateful to the taste, wholesome and nourishing to the stomach, and we do the recipient no injury." But at the same time he is conscious that when he adulterated his goods he did it, not for his neighbor's good, but for gain—to add to his own profits. He diluted and debased what he sold to gratify himself and not his neighbor, and in so doing he violated the golden rule: "Whatsoever ye would that men should do to you, do ye even so to them." Every common-sense man and woman in the land despises the person who deceives and defrauds them. This is so obviously the case that we pause neither to prove, argue or illustrate the assertion. If we have a reader who questions the proposition, he has lost one of the choicest jewels of human nature, and that is self-respect. When men or women lose their self-respect, reformation and improvement are works not easily accomplished. So long as we respect our humanity there is hope for us; but when we tamely submit to allow men to palm off on us, roasted barley, peas, corn, sweet potatoes, acorns or even chicory for Old Government Java or even Rio coffee, without a spirited protest, then are we beginning to trifle with our self-respect; and the villains who, in their dungeons and dens of infamy, thus practice on the credulity and ignorance of weak humanity deserve a higher and deeper reprobation than the counterfeiter of greenbacks, or the adulterator of our national gold and silver coins.

The summer meeting of the Lorain County Bee-Keepers' Association will be held in the Court House at Elyria, Ohio, on Wednesday, Aug. 6, 1884. O. J. TERRELL, Sec. North Ridgeville, O.

The Kentucky Bee-Keepers' Convention meets in Louisville, Ky., during the opening of the Exposition (day not fixed). N. P. ALLEN, Sec.

The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association will hold its next meeting on the third Tuesday in August, at Leroy Highbarger's, near Adaline, Ogle County, Ill. J. STEWART, Sec. Rock City, Illinois.

CORRESPONDENCE

For the American Bee Journal.

Shall we Breed Hybrids?

JAMES HEDDON.

I have no barren statements to offer. I conceive that the mind of the bee-keeper of to-day would relish something in accord with his present knowledge of bee-culture. An assertion of what I am doing, and have done, still falls upon the ear of the most credulous as merely an assertion. I wish, if possible, to convince the reason of every reader. My preference for hybrids, or crosses between the best strains of German and Italian bees, is based upon certain facts, many of which are well known to the reader of less experience.

Did you never think it strange that the product of two races of bees should, as a rule, possess certain traits in a more radical degree than either parent race? Apropos to the above, do you not distinctly remember that the decisions of bee-keepers have been largely in the majority—that hybrids, crosses between Italian and German bees, were excellent honey gatherers? equaled by few and excelled by none; but oh! so universally cross.

Just why it should be a rule that this product possessed more belligerency than either parent, attracted my attention some years ago. I first built up a theory to account for the enigma, to which by fitting every day facts, I proved to my own satisfaction to be correct.

My first proposition is, that we have but two distinct races of bees—the dark, and the yellow; and second, that the yellow race of bees possess much the most belligerent disposition.

A thousand voices will now ask, "Why has the black bee been called the crossbreed?" I will try to explain. If you receive 3 or 4 stings during the manipulation of 10 colonies of dark or German bees, and only one sting in handling the same number of yellow colonies, would you not arrive at the conclusions so unanimously declared by bee-keepers of the past? Still, a mistake has been made. In opening a hive you are very rarely stung by bees that do not take wing. A well known and marked characteristic of that branch of the yellow race, known as the Italians, is, that compared with the dark or German bees, they are very tenacious of their foot-hold on the combs and in the hive. I think I am safe in saying that during the manipulation of a colony, from 8 to 10 times as many bees take wing when handling the German bees as would when handling Italians.

Now, as the proportionate number of stings received is not one-half as much against the German bees as their greater proportion are in condition to sting, here is an argument of two

to one in favor of the good-nature of the Germans; but here are more arguments based on what your experience has already taught you. There are ways to test the disposition of bees when on the wing—ways which we all use of necessity. Apply smoke equally to the races under equally unfavorable conditions, and while the Germans mind its admonitions and give up at once, the Italians seem to "lay back their ears" preparing for battle, as soon as the fog clears away.

Another way: When it is too cool for bees to fly, if you approach a hive carefully (I mean in the winter), and cautiously pull back the cloth cover, black bees, as a rule, will show no resentment, while Italians will tip up their posteriors and thrust out their stings. By the worst of treatment arouse a colony of Italians till they take wing quite freely, and you have nothing worse to fear from blacks.

It seems that the offspring of these two races, as a rule, inherited about equally from the dispositions of the parents, while those crosses coming from the little blacker, German strain, and the bright, yellow Italians were most sure to partake of the light-footed, take-wing tendency. Does this not account for the fact that the hybrids were, as a rule, worse to handle than either parent race in its purity? Does it not also account for the ferociousness of the Cyprians? They possess to the full extent the innate meanness of the yellow race and light-footedness of the blacks.

Now, if you will rid your apiary of all German bees, except the larger brown variety, and of all the yellow bees except the leather-colored Italians, you will find cross hybrids largely in the minority. You will find that most of your hybrid colonies are as good-natured as any bees you ever saw, and standing well up to, or above the reputation given them by the bee-keepers of the past—as being par excellence as surplus honey producers.

You must not forget that this most valuable strain is not a fixed race; that it is liable to sport from one "side of the house" to the other; i. e., strongly show the tendencies, sometimes of one parent and sometimes of the other. They will rarely fall below the aggregate worth of either parent. This sporting tendency gives a most excellent opportunity to breed for qualities. Were I keeping either race in its purity, I should always breed for qualities, rearing my queens from my best colonies, which produce the largest quantity of surplus honey, and good behavior as one of the main points of valuation. No matter whether you have purchased a queen, and are breeding for Germans or Italians in their purity, or their crosses in their excellency, if you do not direct their breeding, rearing your queens from your best colonies, you will fall behind those who do, and you will always need to purchase queens from them.

For the benefit of many who are now breeding from hybrids, let me say that it is my advice to breed from the greatest honey-gatherers, and always such bees as stick to the combs

in the good old-fashioned Italian style. I want no Cyprians or Syrians to knock at my apiarian gate, unless they are possessed of the fast-footed tendency. I cannot admit such a queen, even though she came mantled in a ten-dollar greenback.

My opinion is, that very many who suppose that they have "good-natured Cyprians," have only Italian bees. If we find such radical differences in disposition of different colonies of the new races, as is reported from those who think that they have the pure Cyprians and Syrians, then surely there is little fixedness to be found in these new races. Next to the crossed strain of bees above described, I prefer the leather-colored Italians in their Simon-purity. Early and late brood-rearing are now being proven to be injurious qualities. My students will tell you that our 45 colonies that could not breed at all till they gathered the pollen of 1884, notwithstanding they ceased breeding early last autumn, are now the strongest colonies we have in our yard; and every one has been the pink of health for a year past.

Would that I were as sure of an 1884 fall honey-crop as that the introduction of the Cyprians and Syrians into this country has been a serious draw-back to our business. I have tried to appeal to known facts and reasons, asking you to take therefrom nothing for granted. How well I have succeeded, I leave the reader to judge.

Dowagiac, Mich.

For the American Bee Journal.

The Honey Crop in Texas.

B. F. CARROLL.

This part of the State of Texas has been truly blessed with another grand honey flow. About June 1, as soon as the terrible floods subsided, our bees began to work on the mint. At that time I had 50 full colonies set apart for honey gathering, and the balance, all weak colonies, were broke up into two and three-frame nuclei. I put supers on a few hives, and as I had 40 acres in wheat and oats, 23 acres in corn, and 20 acres in cotton and millet, I had my hands full. I hired a man to run the farm, and I would run the bees; but he quit me about the time I was badly needed in the apiary, and I got fearfully behind.

I offered \$2 per day for a hand to work at the extractor, but none could I get. I finished my grain crop and let the cotton go, and began running the extractor. By this time all the hives were full, and the honey well sealed over. In two weeks I was up with the bees, but lost over 4,000 pounds of honey. I took a little over 6,000 pounds of extracted honey, and a few pounds of comb honey. I will get about 1,000 pounds more, making an average of about 140 pounds per colony. My big colony swarmed, and the old queen went to the woods. A second swarm gathered 100 pounds; the old colony 277 pounds, making 377 pounds; and if I could have saved the

first swarm, I could have taken from them over 200 pounds. The honey flow is not yet over, and it may yet average nearly 200 pounds per colony.

The honey taken is very fine, weighing 12½ pounds per gallon. I use spruce and cypress wood kegs, holding 5 and 8 gallons, and find them to be better than tin vessels, and much cheaper. My bees are pure Cyprians, and some colonies did not like the feather brush, so on these I used the tops of the camomile weed, and found it did not make them so hostile. After working four years with the Cyprian bees, I can truthfully say for them that they are the best bee yet for our hot, windy prairie country, and I think they will do well anywhere in the South. Heddon's "pollen theory" is certainly correct. I will soon give my experience on this subject.

Dresden, Texas.

For the American Bee Journal.

A Plea for Pollen.

DR. G. L. TINKER.

The recent report of the costly experiments made during the past winter by Mr. Heddon in support of the pollen theory, as anticipated, brings to light no facts not already reported by Prof. Cook, who several years since made many careful experiments in wintering bees on sugar syrup, and which proved clearly enough that cane-sugar is a better winter food for bees than the natural stores; but those who hold that thereby the theory is also proved, are taking much for granted.

There are too many questions involved to be settled by a single line of experiment. The theory is not only not proved, but it is far from being advisable to reduce it to practice, although our friend is so very confident that it is all right. I am pleased that he is so; but trust that he will not think Mr. Corneil, myself and others, obstinate in our opposition, because we believe the theory inadequate to cover the facts which he alleges.

The experiments required to be made to prove anything at all, must exclude honey entirely; and the stores be confined to sugar syrup and bee-bread in a hive properly prepared for winter; but after these have been made, there will still remain the great question of the primary cause.

Now, Mr. Heddon talks to us very familiarly about the causes "auxiliary to the cause;" and it has become interesting to learn how he knows which is primary and which secondary. Of course we know that there is no first cause, scientifically speaking, and hence we are to consider only those causes or conditions which may be controlled or modified by the hand of man.

First of all it will be noted that Mr. Heddon places much stress upon the unity of the cause of bee-diarrhoea. This he is obliged to do if he would substantiate the theory. It must not only be a cause, but the one great cause. It will hardly do to admit so

many auxiliary causes, lest some one living in the South might suggest that, notwithstanding all the pollen, bees winter tip-top down there. As cold is the principal factor here in the North, not experienced by our Southern friends, it strikes one that cold as "the greater auxiliary to the cause," is assuming too much, and liable to turn out as with one of our own politicians, who, before the ballots were counted, always claimed everything with confidence.

My investigations of the cause of bee-diarrhoea prove what Prof. Cook, Mr. Doolittle, and a host of other able observers have found, viz: that "restlessness," "excitement," or "undue activity" of the bees in winter quarters are the first symptoms of the disorder. On the contrary, those colonies which remain quietly clustered upon the combs and have enough to eat, usually winter all right; but if they become restless there will soon be a demand for nitrogenous food to supply the waste of tissue. If, now, they cannot void themselves in confinement as held (which, however, is not yet clearly proven), then the indigestible particles of the bee-bread consumed, together with the excretion of the worn-out or effete tissues (which, as one of the adjunct causes of bee-diarrhoea, completely dwarfs that of pollen), may accumulate, after a time, in quantities producing serious harm. It would, however, be a great mistake to suppose that the accumulations are the cause of the restlessness, since it is certain that bees do eat pollen all through a long winter confinement, and yet winter well. This fact is now well established, as pollen husks are always to be found in the intestines of bees in winter confinement; but no trouble comes from slight accumulations. It is only, when, as in such a winter as that of 1880-81, bees are obliged to consume inordinate and almost unprecedented quantities of both honey and pollen to keep life in them, that these harmful accumulations arise.

If restlessness, then, causes the bees to eat too freely of pollenized food, it ranks as a prior cause; and the most that could be held is, that the latter may be an auxiliary cause, while restlessness, as the effect of cold, humidity and confinement, one or all, must stand as the primary cause or causes amenable to the hand of man. I am, therefore, unable to see the propriety of excluding the bee-bread from the bees in winter, but think that we should provide against the primary causes; and I shall hold that the latter policy may be more economically executed than the former, and that it is practicable, effectual in results, and consistent in theory.

To prevent the consumption of too much pollen by the bees, under adverse conditions, it would be necessary to exclude nearly all of it from them, which measure will certainly require more "fussing" than most men will care to give their bees. It will not be enough to limit the amount to one-half or one fourth of the ordinary quantity stored; for the colonies

dying of diarrhoea, do not eat all their bee-bread, but leave large amounts of it.

Again, Mr. Heddon has given one case which died of diarrhoea, as he states, caused by eating from only one comb; and yet, when he examined it, it was "nearly half full of bee-bread." As this comb undoubtedly contained some honey, and also a patch of brood "as large as a man's hand," in the fall, how much bee-bread, think you kind reader, does it take to kill a colony of bees? According to this showing, a few dozen cells of it is ample to kill any colony, other things being favorable. It is plain, therefore, that it will be impracticable to exclude it in such amounts as to insure safe wintering; unless, indeed, we come down to the use of "tooth-picks."

There are bee-keepers living farther north than Mr. Heddon, and who winter, year after year, a great many more colonies, and with almost no loss at all. Wintering is no trick for them; bee-bread in the hives in winter gives them no concern, and they seldom have a case of bee-diarrhoea. That their methods are not practicable and efficient, there is no doubt; and that all other bee-keepers may be equally successful, there is also no doubt. Could Mr. H., therefore, give us a practical method of excluding all pollen from the hives in the fall, it would offer us no advantages in wintering not already possessed, even if his method of wintering would always prove safe, which is not now, has not been in the past, and will not be in the future.

On page 171 of the BEE JOURNAL for 1881, is a report by Mr. Wilber which is especially commended to Mr. Heddon's consideration. The report, like all others that I have read on the use of sugar syrup, is, on the whole, favorable against the use of natural stores. In this case, however, one of the sugar-fed colonies wintered in the cellar, died of "dysentery," and two of those wintered on the summer stands, died; but they "were the only ones that died without the dysentery."

In view of such a report as this, of what was clearly a carefully made test, who will say that, if we had had such a winter as that of 1880-81, Mr. Heddon would not have lost one-half of his 45 sugar-fed colonies; and that, too, not from diarrhoea, but from another trouble not less to be dreaded, viz: *restlessness* under the smarting effects of bitter and prolonged cold in a damp, devitalizing atmosphere? It is plain that, if bees get restless from any cause, and they have not access to bee-bread or other nitrogenous food to supply waste of tissue, there vitality will be speedily exhausted.

I shall repeat, therefore, what was stated a year since: that I believe that the pollen which bees consume in winter, is essential to their well-being, and never detrimental, except when the force of circumstances compels them to eat not only more pollen, but more honey than the vital powers can endure.

This being true, should we not give bees better winter protection, better

ventilation, and more of that "highly oxygenized food"—sugar syrup—which is found to be so much better than honey to aid the bees to withstand our inclement winters? We may take from them the combs containing excess of bee-bread, and return them as soon as they have need in the spring, and especially if it takes up needful room for other stores; but to undertake to prevent the storing of pollen, or to remove it after it is stored, as contemplated by Mr. Heddon, will be just so much loss, at the rate of \$1 per pound (which is the value placed upon it by an eminent authority), while the compensating advantages of the prevention or removal do not yet appear.

We often have bad spring weather, when the bees cannot gather the needful supplies of pollen to enable them to breed up in time to take advantage of the yield of white clover. We can well imagine Mr. H. with his pollenless bees, under these circumstances, and what would be the result of it. For my part, I have never seen too much bee-bread in my hives, and never expect to. When the combs are well filled with it in the spring, it is soon gone, often long before fruit bloom, which I consider chiefly valuable to our bees, only because of the very large amount of pollen collected from it.

The past spring I had one colony which had been built up from nuclei last fall, which, it seems, had little pollen but plenty of honey and sugar-syrup. After a time, I wondered why they did not breed up faster, and I suspected that the queen was worthless; but upon examination, I found that they had not a particle of bee-bread, and had not been able to collect enough pollen before fruit bloom to fill one comb with brood. The result was, no surplus from this colony.

In conclusion I cannot refrain from commending to Mr. Heddon the very valuable advice given by Rev. Wm. F. Clarke, in the closing paragraphs of an article on page 364 of the BEE JOURNAL for 1884.

New Philadelphia, O.

For the American Bee Journal.

Central Illinois Convention.

A bee-keepers' association was formed at Jacksonville, Ill., on July 12, 1884, by the adoption of a suitable constitution and by-laws, and the election of the following officers: Capt. Henry W. Hitt, Merritt, Ill., President; Jno. W. Bowen, Jacksonville, Ill., Vice-President; Wm. Camm, Murrayville, Secretary; G. F. Middleton, Jacksonville, Ill., Treasurer.

Some discussion arose as to the name of the new society, but it was finally decided to call it the "Central Illinois Bee-Keepers' Association;" though some members thought that there was a society at Bloomington styled the Central Illinois; yet it could be changed if such proved to be the case.

It was intended to include the bee-keepers of Scott and Morgan counties

only, but J. M. Hambaugh, of Brown county, desired that others be allowed the privilege of joining; so it was decided to accept all without reference to the county in which they lived.

An interesting discussion arose as to prices of honey and prospects for honey crop. It seemed to be the opinion of all that the flattering prospect for a large honey crop, this year, would not be realized. Nearly all reported that white clover was still plentiful, but few bees working on it; and that the bees were cross and inclined to rob. Adjourned to meet on July 26, 1884.

WM. CAMM, Sec.

H. W. HITT, Pres.

For the American Bee Journal.

The Report of the Honey Crop.

W. H. STEWART.

While we question the correctness of some reports, we are forced to admit that sometimes one, or may be 6 colonies out of 50 or 100 do produce wonderful yields.

On page 115 of the BEE JOURNAL for 1883, Mr. Doolittle states that he obtained 586 pounds from a single colony that did not swarm, and was not divided; but we notice that this colony was one of many in the same apiary; and, although he states that it had no help from any other colony, yet we understand that the empty combs which he gave them, aided them very much.

On page 434 of the BEE JOURNAL for 1883, Mr. Flory reports over 600 pounds from one colony; but does not state whether it was "spring count," or whether divided—making 2 colonies instead of one. If this were the case, then it would appear quite reasonable that 1 or 2 colonies should produce 300 pounds each, when kept in the same locality with many other colonies.

Again, Mr. F. does not state whether he supplied those bees with empty combs or not. It has been proven by experiment that as much honey is consumed in the production of a comb (in the natural way) as the comb will hold when finished. If this be true, then the 20 combs (Gallup combs that hold about 6 pounds each) which Mr. Doolittle gave to his colony would be equivalent to giving them 120 pounds of honey; and not only so, but the bees which were thus enabled to gather honey to fill those combs, would otherwise have been compelled to stay in the hive to build their own combs, thus very much reducing the honey-gathering force of the colony.

I am of the opinion that many bee-keepers make great mistakes in reporting that certain colonies accomplish so much more than the average. They may be correct in regard to the amount of honey taken from a colony, but in jumping at the conclusion that the colony had gathered that much from the field, is where the mistake comes in.

On page 560 of the BEE JOURNAL for 1883, Mr. J. E. Pond has truly

stated as follows: "I presume that every intelligent bee-keeper who gives his own time to the care of his apiary, has noticed that in a dozen colonies, all apparently alike and in good condition, 1 or 2 will give exceedingly good results, comparatively, while the balance will hardly come up to the mediocrity in the amount of surplus obtained from them."

At first I concluded that it must be owing to the superior strain of bees, and endeavored to remedy it by making such changes as would—theoretically, at least—equalize the matter; but when, the next season, I found the best colony of the previous year showing a decidedly poor state of affairs, I concluded that something besides poor stock was the cause of the trouble."

In another portion of his article, Mr. P. expresses the opinion that the reason that different colonies give such different results is, that all, or most of the bees belonging to the same colony, work in the same direction from their home, and in the same pasture; and that, as honey is found in much smaller quantities in some localities than in others, hence the difference.

Mr. P. gives the above opinion very modestly, and does not claim to have given the "whole truth, and nothing but the truth," but has given it, "hoping" to "create enough interest in the matter to start an amicable discussion in regard to it;" and at the close of his remarks on the subject, says: "Who will give the subject some attention, and the readers of the BEE JOURNAL their views upon it?"

Mr. P. has done well in calling for an investigation of this matter, and I hope that our most able and experienced bee-keepers will at all times give, in the BEE JOURNAL, such facts as may come under their observation. To give my views and experience in full, on this subject, would make this article too long.

Orion, Wis.

For the American Bee Journal.

Mr. Heddon's Report.

WM. F. CLARKE.

I have read the above article which appeared on page 405, with much interest, and with a sincere desire to divest my mind of prejudice. It carries, throughout, the air of a knock-down argument in favor of the pollen theory, but I submit that the proof is far from being conclusive. There is evidence, which we had long ago, that under certain conditions bees will winter well without either honey or pollen; but it is by no means demonstrated that, if there be pollen in a hive, bees will be silly enough to eat it in such quantities as to cause diarrhoea. In fact, the reverse is shown by the facts which Mr. Heddon narrates.

Only 45 colonies out of 336 were "prepared without a cell of pollen." There were, therefore, 291 colonies that had more or less pollen stored.

Seventy were not fed sugar, and these, we are told, had "less bee-bread than usual," while those that were fed, "had not one-fourth as much bee-bread as usual." Mr. Heddon gives us no information as to the consumption of bee-bread, either in the 70 unfed colonies, or those which were fed; he merely informs us that he "lost about 30 colonies by diarrhoea," but does not state any facts as to the consumption of bee-bread by the colonies he lost.

The history of the 45 colonies is not so conclusive, when you come to think it out as it might seem to be on the first blush. That 44 of them wintered well, only proves what we knew before, as I have already stated, viz: that under favorable circumstances in other respects, bees will winter well in the absence of either honey or pollen. The report on the 45th hive is open to criticism on at least two points: First, it does not appear that this colony had any more bee-bread than many of the 291 which wintered well; and secondly, though this colony had, by mistake, pollen left in it, the "pizen" does not seem to have been eaten by the bees. When the foreman examined that hive, in the fall, one comb had a patch of brood nearly as large as his hand; and when Mr. Heddon opened the hive in the spring, one comb had "a little brood," while the comb was "nearly half full of bee-bread." So, then, the bee-bread, which the foreman saw in the fall, appears to have been left untouched, for there was about the same quantity at the two examinations. Is bee-bread so fatal that its mere presence in hives will cause diarrhoea?

My comment on Mr. Heddon's report would be, that his bees were prepared for wintering with great care, and that the season happened to be of a character that most of the colonies were able to hibernate, and so, did well. There is nothing in the whole narrative to conflict with the position I have taken in regard to wintering. I would like to know what amount of stores those bees consumed. If a small quantity, then the hibernating conditions were nearly perfect; and if a considerable quantity, then the bees were only able to hibernate partially—still, hibernation was so far practical as to bring them through the ordeal in good condition.

Too much consumption of food, whether honey, sugar or pollen, interferes with normal hibernation. Establish the hibernating conditions, and they will eat the minimum of food.

Mr. Heddon does not tell us how well any of his colonies wintered, except the 44 which were prepared without a cell of pollen. Did others that had some pollen winter equally well with the 44 that had none? If so, what becomes of the no-pollen theory? The fact is, that whatever may be true in regard to the pollen question, Mr. Heddon's report squares exactly with my discovery, that *successful wintering depends on hibernation*. That is the key to the mystery, and I earnestly hope that every bee-keeper in the country will accede to my modest

request, and prepare at least one colony for the winter of 1884-5, so that it can hibernate as it would do in a hollow-tree trunk.

I am sorry that Mr. Heddon indulges in such a contemptuous fling at "our ever-present corps of inexperienced apicultural writers." Of course, by these he means all who do not obtain their livelihood exclusively by bee-keeping. At the head of this "corps" stands the Rev. L. L. Langstroth, who gave us the movable-frame, and, at the tail, there is your humble servant, who has lately evolved the hibernation-theory, out of which, after due experiment, will come to the true method of wintering bees; and in the success of which we shall remember the "bacteria" and "pollen" vagaries of a certain experienced apicultural writer, as an illustration of the fact that "it takes great men to put forth great nonsense."

Warren Pierce's article in the same number as Mr. Heddon's report, is a splendid contribution to the mass of proof that will soon be forthcoming to show that the problem of wintering is solved by *hibernation*.
Speedside, Ont.

For the American Bee Journal.

Facts in Regard to Wintering.

J. E. POND, JR.

I do not intend, at this time to enter into a discussion of the "pollen theory," but, instead, to give a few facts from my own experience. Discussions on mooted questions will always prove valuable, and whether the "pollen theory" is correct or not, a full and complete investigation in regard to it will aid all of us greatly, in solving the winter problem, for the reason that it must bring out facts which otherwise would not have been generally known.

I do not know that the facts which I shall recite will add anything of value to the discussion on wintering; but having wintered my bees on the summer stands for years without the loss of a single full colony, possibly these facts may prove of some interest.

Last fall I prepared 2 colonies for winter by selecting and giving to them such frames as contained the largest amount of pollen of any that I could find. I should judge that at least $\frac{1}{4}$ of the cells in each frame contained more or less pollen. These 2 colonies were of fair size, and covered 6 Simplicity-Langstroth frames. They were both put in single-walled Simplicity hives, with division-boards on each side of the frames; a "Hull's device" over the frames, covered with a thin woolen blanket, and the upper story filled with forest leaves; the cover having inch holes in each end for ventilators. An entrance $\frac{3}{4}$ of an inch wide by 6 inches long was also given them.

My other colonies were prepared for winter in much the same manner; the only real difference being that I took no particular pains in regard to pollen, and giving them such frames as I had containing sufficient stores. In pre-

paring the frames for winter, I always begin as early as Sept. 1, and so arrange them that at least the upper third part of each frame is filled with capped stores; thus giving food enough in a situation where it can be reached at all times, no matter how severely cold the winter may prove.

The result of my experiments was, I did not lose a single colony; that none of them showed any signs of bee-diarrhoea; but that the 2 wintered on what ordinarily would be called an excessive amount of pollen, came through in the best condition of any. Brood-rearing having begun early, one of those colonies gathered 72 pounds of honey from apple bloom.

I have no theories to advance; I simply state the facts. I am of the opinion, however, that bees prepared for winter, as an experience of years teaches me, is the correct method for my own location, will meet with a minimum of loss. I will say that if pollen is the cause of bee-diarrhoea, the 2 colonies mentioned above, ought to have been terrible sufferers from its effects.

Foxboro, Mass.

Texas State Convention.

The Bee-Keepers' Association met at McKinney, Texas, April 12, 1884, at 10 a. m. Judge W. H. Andrews, President, declared the sixth annual session called to order. He said it was now swarming time, and that the bee-keepers had now clustered and were ready to be hived. That the Association was, year after year, drawing some new member from a distance. This year we have the Cyprian from as far south as Navarro—Mr. Carroll, of that county, now being for the first time present with us—and that he hoped to see the good work go on.

Business now being in order, a motion was made by Dr. Marshall, was carried that a committee on questions be appointed, and that all members desiring to put questions to the Association, present them to the committee; the committee to select the most important for discussion, and report them to the Association. T. C. Goodner, J. S. Kerr, and M. H. Davis were appointed on the committee.

A motion by Dr. Marshall to appoint a committee on foul brood, was carried. Dr. Marshall and Judge Goodner were appointed.

Moved and carried that the Association recommend the AMERICAN BEE JOURNAL, and that it be the organ of the bee-keepers in Texas.

Report of committee on questions was next made.

1. "Should the queen's wing be clipped?" Answer by committee, "Yes."

Dr. Marshall opposed the clipping; thought it would end in a race of bees without wings. Mr. Carroll took the same ground, saying in addition, that it injured the beauty of the queen. Mr. Davis favored clipping as a means of preventing swarms from absconding. Mr. Graham opposed clipping,

and did not think nature should be crossed. Judge Andrews said that the conclusion of the National Bee-Keepers' Association was against clipping. He thought there was no doubt that the bees like a queen with perfect wings the best, and that a mutilated queen was not acceptable to the bees. But did not think the clipping would ever tell injuriously on the progeny of the queen—the loss from clipping was greater than from the absconding swarms—as the queens not being able to fly, would crawl off in the grass.

On taking the sense of the Association on the decision of the committee, two members sustained it, the others against it.

2. "Does it pay the better to run an apiary for extracted or comb honey?" Answer by committee, "Extracted honey."

Report of committee unanimously adopted.

Adjourned till 1 p. m.

EVENING SESSION.

3. "What is best to plant for honey pasture?" Answer, "Horse-mint."

Dr. Marshall thought black locust a good forage. He thought lime might succeed well here; also recommended the protection of honey-locust for the benefit of bees. J. S. Kerr said he had made some experiments with sweet clover. He thought it a good honey forage, and not dangerous to farms. Scott McKinney had observed that china or scratchberry afforded a good flow of honey, and also motherwort. Mr. Carroll had tried the blue thistle of Virginia, and considered it about as good as anything. Also pepper-wood is very excellent. Judge Andrews said sweet clover did yield honey, but not of such a quantity as to attract bees if they had anything else to go to. The Simpson honey-plant was the best honey-producer for the black land. He believed the Canada thistle would grow here, and in its native country was considered a most excellent honey plant. That honey locust and black locust should both be encouraged and protected in their growth. Raspberry, he said, made the best honey. Ratan is a tip-top honey producer; also, red-bud yields a good supply of honey.

The special committee on foul brood next reported the following resolutions:

Whereas, Foul brood has appeared in our State, and is now found in Dallas and in the surrounding country, and is now spreading into other counties; and

Whereas, It is spreading with wonderful rapidity, and threatens to be one of the most fearful evils with which we have to contend; and

Whereas, It threatens, if not checked, eventually to destroy the whole industry of bee-keeping in the State, therefore,

Resolved, 1. That we urge all the friends of bee-culture to use every effort in their power to prevent its spread.

2. That we urge every bee-keeper, at its first appearance, to burn the hive in which it appears, with all its

contents, believing that fire is the only sufficient remedy; and

3. That a committee be appointed to prepare a draft of a Bill in reference to foul brood, to be presented to the next Legislature, and that the members of this Convention present a copy of this Bill to the member of the Legislature from his county, and urge him to use his influence to secure its passage.

Dr. Marshall held that foul brood was the greatest evil that bee-men had to contend with. It was imported into the neighborhood of Dallas by Mr. Collin. It had spread as far south of that city as Lancaster, eight miles east, and as far west as Arlington. He had never found a remedy for it. It is never discovered until after the larva is capped over, then by the sinking of the cap. He advocated legislation that would compel its destruction as the only means of getting rid of it. A swarm of bees may run away and settle in a hollow tree in the woods, and die from foul brood, and the bees for several miles each way may carry off the honey they leave, and thus scatter the disease in all directions. Judge Andrews had seen foul brood eight years ago in Mr. Collins' apiary at Dallas; since that time there has been no alarm, but now it is spreading rapidly, and he recommends that on first appearance the hives be destroyed solidly and effectually.

As to its appearance, there will be found a small hole in the centre of the cap. There is a very foul odor peculiar only to foul brood, and can be smelt outside the hive.

Scott McKinney gave an account of what was thought to be foul brood in Mr. Binckley's apiary at Sherman, but did not know whether it proved to be foul brood or not. Mr. West, who, it was thought, had foul brood in his apiary in Tarrant county, now gave his views. He did not know whether he had foul brood or not. About the first of February he noticed cells with caps open in the centre, thought it was chill brood. He then found there were 12 colonies affected with it, and sent these off several miles. Thought his entire apiary was affected with it. Had checked it to a great extent. His colonies had sent out swarms. Had seen bees hatching in the hive beside it. Did not think it affected the drone or queen-cells. He burns the combs and boils the hives as a remedy. Mr. Horn advocated the boiling process with red pepper added to the water.

After prolonged discussion the resolutions were adopted. The Association then proceeded with a further discussion of the questions handed to the committee.

4. "Will it pay to rear young queens to introduce into new colonies?" Answer, "Yes." Sustained by the Association.

5. "Can more than one race of bees be kept successfully in the same apiary?" Judge Andrews held that more than one race would mix, and recommended that only one race be kept in the same apiary.

6. "Are artificial better than natural swarms?" Answer by the committee, "For increase, yes." "For honey, no." Report of committee adopted unanimously.

7. "Can a bee-keeper make a success of a one-story hive without an extractor?" "Yes," by committee. Judge Andrews thought that for the use of an extractor anything but a one-story hive would be best. Mr. Carroll thought that when there was a good flow of honey two, three and four stories were best. Mr. Cooper held that a two-story hive was best, as it gave the honey time to ripen. Judge Andrews did not believe it necessary that honey should be allowed to remain in the comb to ripen, but should be thrown out as soon as possible and ripen in open-mouthed vessels. Mr. West was opposed to two-story hives. Mr. Carroll held that to throw honey out before it had ripened, was a good way to make vinegar or metheglin; and that honey evaporated in barrels did not have the same flavor as that ripened in the comb. Dr. Marshall thought it would require an expert to throw out the honey and then ripen it; and he thought a two-story hive the best, as the brood would be disturbed in one-story hives by extracting. Judge Andrews' plan is to store honey first in open stone jars and cover with thin cloth—the temperature for ripening the honey is from 80° to 90°. Mr. Horn said he had ripened honey in 10-gallon kegs. Answer of committee sustained.

8. "Are drones from an Italian queen that has mated with a black drone, pure Italians?" By committee, "Yes." Mr. Carroll thought they would be pure. Judge Andrews thought not. Also, Dr. Marshall thought not, and that the progeny of the queen, both male and female, were affected by the mating. Dr. Howard thought the offspring a mongrel of no certain degree. Report of committee not sustained.

9. "How can one or more weak colonies be combined in the beginning of the season so as to make a strong one?" Mr. Carroll recommended placing the hives one upon the other, or make the new colony by taking frames alternately from the old ones and place them in the new hive. Dr. Howard recommended placing one hive on the other, and give both a thorough smoking, and lean a board against the front of the hive to aid the bees in marking their new locality. Mr. Wilson's plan was to put in one colony with half the frames, then a division-board; at night take out the board and smoke the bees thoroughly. Judge Andrews did not approve of removals, but if necessary, would move the hive the whole distance at once, and keep the bees in for two nights and one day.

10. "Does the amalgamation of bees produce good results?" Answer of committee, "No." Mr. Carroll thought it might possibly do so, but said we could not know it. Referred to Mr. Heddon as authority, but thinks pure stock the best. Judge Andrews held that nothing could possibly be gained

by mixing the races. Much is claimed as a superiority in bees, which is not an advantage in any way; thought the Italian the best, but would rather have a black bee than a mixed race. Those who have a large stock of bees always say (that is in the papers) that all other bees are of no account. He has found all bees to yield about the same amount of honey. Report of committee was sustained.

Adjourned till 8:30 a. m.

April 25. The Association met at 9 a. m., Dr. Marshall presiding. A motion was carried to fix the next place and time of meeting. McKinney was unanimously chosen, for the first Thursday in May, 1885, to continue two days. The election of officers for the ensuing year resulted as follows: Dr. W. K. Marshall, President; B. F. Carroll, Vice-President; Dr. Howard, Secretary; W. B. Graham, Treasurer.

Judge Andrews, delegate from the State Bee-Keepers' Association of Texas, for 1883, to the North American Bee-Keepers' Association at Toronto, Canada, made his report: He thought that his attendance of the Association was of much value, but his visit to Mr. Jones' apiary was worth much more. Mr. Jones has 2,500 or 3,000 colonies, distributed over a territory nine miles in diameter, keeping 150 to 176 colonies in each yard. He breeds his queens and drones at home, and sends them over to Islands in the Georgian Bay, and by this means keeps them unquestionably pure, impregnation being made sure. His profits arise largely from the sale of queens, but he also sells large quantities of fine honey at 20 cents per pound. The Judge spoke well of Canadian honey, and exhibited a sample which he had brought home with him. He said there was a great quantity of fine extracted honey on exhibition at the Convention. The most prominent questions discussed in the Convention were left without taking a vote. On spreading the brood, the weight of opinion was against it, many contending that it was one course of foul brood. It requires an expert to accomplish it successfully. The weight of opinion was in favor of the Langstroth hive. Mr. Langstroth is entitled to be called the Huber of America. He thought Mr. Jones the prince among bee-men. He spends vast sums of money in experimenting. According to Mr. Jones' experiment, there was no great difference in the products of the different kinds of bees, as he observed in Mr. Jones' apiary. In Convention he met distinguished bee-men. There were but three representatives from the Southern States. Mr. J. P. H. Brown, of Georgia, Mr. W. S. Hart, of Florida, and himself. He thought more honey was produced in the North than in the South, because they have more honey-producing plants. It was unanimously agreed that extracted honey was the most profitable, and the disparity between comb and extracted honey was fast disappearing. As to different varieties of bees, he formed a diversity of opinions. There was no decision of the Convention as to which were best.

A motion prevailed to appoint a delegate to the next National Convention to meet at Rochester, N. Y. Judge Andrews was selected as delegate. A motion was carried to so amend the Constitution as hereafter to collect \$1 as an initiation fee. Also another motion carried, that voluntary contributions of \$1 from each member be asked for, in order to defray all expenses of the Association. A resolution passed instructing the secretary to notify all the members not present, of the one-dollar contribution, and request them to send in theirs.

Association adjourned till 1 p. m.

EVENING SESSION.

The Association met pursuant to adjournment, Mr. Carroll presiding.

11. Question from the committee.

"Is the moth a destructive enemy to the bee in any way?" Answer, "Not to the bees, but to the comb." Judge Andrews held that the moth never hurt a colony of bees, but destroyed unprotected comb. That a strong colony is never hurt by moths, and advised that combs be hung up and smoked like bacon. Dr. Howard said he put his combs where light and air could reach them, and they were never injured by moths; but if they were put in a dark, damp, and warm places moth would destroy them. Judge Goodner had found, by experience, that it would not do to hang combs in a dark smoke-house. Mr. Kerr hung his to joists over-head, and found it a safe plan. The report of the committee was adopted.

12. "What is the best method of increasing colonies?" Answer, "By artificial swarming." Sustained by the Association.

13. "What is the best plan of keeping the bees from swarming?" No answer by the committee. Mr. Carroll said swarming could be prevented to some extent by using the extractor freely. Dr. Howard said swarming could be prevented by keeping the bees too weak, but did not like the manner in which the question was put. Judge Andrews said he would be obliged to any one who would give him any information as to how to limit swarming without injuring the bees. He had been for years trying to solve the problem. No conclusion arrived at.

14. "Is the swarm always led by the queen?" Committee answered "No." Mr. Carroll thought the queen always led. Judge Andrews thought all the bees went out by instinct and one bee never leads another. Bees will come back to hunt the queen sometimes but not always. Mr. Horn remarked that he could see no practical bearing in the question; he had seen the queen come out first, in the middle, and the last. Answer of the committee sustained.

15. "Does the queen control the colony in anything?" Answer by the committee, "yes." Judge Andrews held that she did, only so far as the work of the one depends on the other. Both are moved by instinct. Dr. Howard did not think the queen "bosses" the bees or tells them what

to do. Instinct prompts them all and tells them how to do. Mr. Davis did not know what was meant by instinct, as he never had heard that bees had reason. Mr. Horn thought all acted from instinct. Dr. Marshall said it was difficult to define the difference between reason and instinct. Bees pay respect to the queen only after impregnation. They feed her and give her other attentions. He said the queen controlled the colony to a certain extent. The queen is the first to become excited before swarming. The report of the committee was adopted.

16. "Is a division-board desirable, and are the advantages sufficient to justify the expense?" Answer, "No". Judge Andrews and Dr. Marshall favored the use of division-boards. Mr. Carroll said that an empty comb was sufficient. Answer of committee reversed.

Judge Andrews asked, "Should the old queen be removed before the new queen is selected?" Mr. Carroll said that, in a good honey season, the old queen should remain until the other was turned loose. Mr. Kerr had lost queens while in the cage in the hive.

Adjourned to meet on the first Thursday in May, 1885.

W. B. HOWARD, Sec.

For the American Bee Journal.

"Reversible Frames."

H. DAVIES.

On page 439 of the BEE JOURNAL of July 9, I read Mr. Pond's article on "Reversible Frames;" and a few minutes afterwards I began to read the *Kansas Bee-Paper* for July, when, on page 105, I saw the following article on the same subject. Imagine my surprise to find it signed "P" (which, I believe, is Mr. Pond's signature for his editorial articles in that paper). I am now puzzled to know what Mr. Pond's real ideas are on reversible frames. Here is the article:

"The question of reversible frames is one of no little importance; that is to say, the results said to be produced by reversing, are exceedingly advantageous. The experience of all bee-keepers is, that the lower part of frames are never as well filled out as the upper; reversing is said to overcome this entirely. We, however, look for far greater results therefrom. Our experience is, that when we get the brood placed to the top-bars of the frames, the bees will at once begin work in the sections. In order to accomplish this in days past, we have been obliged to make use of the extractor, which causes considerable hard labor at a time when we are busy otherwise. Now, it seems we can accomplish this result simply and easily, all we need to do, is to reverse the frames, at the time we put on the sections. The bees will rear brood close up to the top-bars, and at once proceed to fill the sections. If any trouble is feared from the queen going into the section also, it can be easily remedied by using the perforated-zinc honey-board between the frames and

sections. We experimented somewhat last season in this matter, and with good results. We are again experimenting this present season on this point, and so far it has proved a success. Many plans of making reversible frames have been given to the public; but the simplest one we know of is to make frames with a projection only at one end of bottom-bar. These frames can then be used in any hive, by simply putting a strip of tin or sheet iron across the bottom of the hive for the projection of the bottom-bar to rest on. Then, when desired, the frame can be turned over without trouble, or change of the hive. P."

I cannot make the two articles agree at all. Can Mr. Pond?
Austin, Texas.

SELECTIONS FROM OUR LETTER BOX

Large Crop of Honey.

We have had a heavy run on clover, which has just closed, and we have on hand more honey than the whole of last year's crop. All of the white honey is of the very best quality. The prospect is yet fair for some basswood and button-willow honey before the fall honey begins to come.

J. O. SHEARMAN.

New Richmond, Mich., July 10, 1884.

Honey from Cotton.

The honey-flow from mint is over, and bees are working some on the cotton. The weather is dry and very hot—104° F. in the shade. I expect we will get a good flow from cotton, as the plant is very late blooming, and the main bloom will be during the last of July and the first of August.

B. F. CARROLL.

Dresden, Tex., July 12, 1884.

Bees Gathering Honey Rapidly.

The work of the apiary, in this part of the country, is up to boiling heat. I put 18 colonies into winter quarters, and by neglect, one starved. After spring opened I lost two more. A number of bee-keepers in this neighborhood wintered their bees all right, and then lost them in the spring. I have 21 strong colonies, and I do not think that I ever saw bees gather honey as fast as they have done this spring. I use foundation, and in 9 days after being hived, the bees will be ready for boxes. I use a modification of the Langstroth hive, called the Fisk hive. I have been using the brood-frames, but I am now introducing a crate into the hives, and I think it is going to be an improvement. I have a splendid location for an apiary. It is two miles from timber and running water, and is bounded by pastures over-flowing with white clover bloom, which, through the bees, lavishes their copious streams of wealth upon my scanty store. WM. STALEY.

Adair, Ill., July 3, 1884.

No Honey, and Prospects Blighted.

I am sorry that I am compelled to say that we have got no honey, as yet, from our bees in this city. It seems that our prospects are blighted in regard to the rich harvest which, to all appearances in the spring, we were promised; but this season we have been over-run with caterpillars and moths of all kinds; in fact, there is not a blossom that is not alive with insects of some kind, and in some places the caterpillars have eaten every green thing. The first crop of lucern has been cut without coming into bloom; so the bees are just getting as much honey as will feed them and their young. I went through my apiary, July 5, but I could find only 2 frames that I could extract from, and those were not sealed over. I think that if a change does not take place soon, the bees will have to be fed their winter supplies. I have fed to my bees about 400 pounds of honey this spring and summer, but I could not get 40 pounds back. I have now 25 colonies, and they are all in good condition. No blame can be attached to the condition of the bees. T. W. Lee told me, the other day, that he had fed over 500 pounds of honey to his bees, and did extract 5 pounds during May; but it was only to keep the "baby from crying," as he had fed so much that he was left without any honey for his own family. I had about 60 pounds with which I have been able to keep peace in the house, so far; but I rather fear that there will be a cry soon, if a new supply is not forthcoming. In 1882, our honey months were July and August; in 1883, June and July; and, perhaps, to make a change, it may be August and September for 1884. I will be pleased to notify you of such a change.

JOHN DUNN.

Tooele City, July 8, 1884.

Honey Crop.

The swarming season is about over, and the bees have done but little so far. I have had only 25 swarms from 135 colonies, and have only about 1,200 pounds of finished comb honey ready to come off. Bees are in fine condition, and we have a fair prospect for a fall crop. J. V. CALDWELL.

Cambridge, Ill., July 16, 1884.

One-Fourth of a Crop.

Clover harvest is over here, and the bees are robbing. The season has been peculiar; plenty of bloom, but cold nights and wet days, so we have not more than one-fourth of a crop.

B. H. STANDISH, 156.

Evansville, Wis., July 15, 1884.

On a Still "Hunt."

I desire to state, since the matter has come up, that a Mr. F. H. Hunt, of Iowa (Linn county I think) has been selling stuff unfit to eat as honey, in Iowa, and tried the same in Nebraska last winter. A caution over my signature was promptly published, and that was the last I heard of him. The matter is in the hands of a

chemist. For particulars I would refer to letters from Mr. O. O. Poppleton and a Mr. McElroy, of Iowa, now in possession of Mr. M. L. Trester, Secretary of the Nebraska State Bee-Keepers' Association.

T. L. VON DORN,

Pres. Neb. S. B. K. Ass'n.

Omaha, Neb., July 11, 1884.

What and How.

ANSWERS BY

James Heddon, Dowagiac, Mich.

How to Make Honey-Boards.

1. Will Mr. Heddon tell me in which number of the BEE JOURNAL he gave a description of his honey-board (sink honey-board), and how to make it? I have mislaid it, and I am unable to "come up with it."


2. If you were working, or intended to work for extracted honey, would you use frames for the upper story the same depth as the brood frames, or shallow frames half that depth?

3. When preparing bees for wintering on the summer stands, do you leave the slat honey-board on, or remove it and cover the frames with a quilt? E. E. EWING.

Highlands, N. C.

ANSWER.—1. I have never given any description of how to make my honey-board, because it would take up a great deal of space, and then one might not get it correct without a sample to work from. I can do so in the near future, however.

2. After carefully weighing, in my own mind, the advantages of both systems, I have made up my mind that I would use the whole story above. I would make the super the same width as the hive, $\frac{1}{2}$ inch shallower, use sink honey-board between it and the hive, and use the same number and style of frames as in the hive. I have fixed one whole apiary of 200 colonies that way, and have made 500 supers (or $2\frac{1}{2}$ per colony, spring count). By the use of two supers to the colony, you can leave the honey to be well ripened before extracting, and yet never lose any honey by so doing, even during the most excessive honey-flow.

3. I sometimes turn over the honey-board (thus doubling the bee-space above the frames), and lay a cloth over it, and put the packing over the cloth. For ten years I have used a basswood stick thus  bent and held bowing, by its ends being within the sides of the hive. The hives are $11\frac{1}{2}$ inches in the clear, and the stick is $3-16 \times \frac{1}{2} \times 12$ inches long. I soak them and press them into hives to dry. They should be cut straight grained. I am not sure that these bows are any better than the inverted honey-boards. I cannot say that I know either device is of much value. I do not think as much of it as I once did. I am revolutionizing my whole wintering methods.

Honey Gathering Qualities, etc.

It will soon be time for bee-men to begin to brag on big yields, increase, etc. I am satisfied with present success, though convinced that, with experience and suitable apparatuses to manage 30 to 50 colonies, I can do better. I have 30 colonies of bees, and only 2 are working industriously. One is 3 years old, and cast one swarm about June 15; the other is a second swarm from a 3-year-old colony. Now, if these 2 colonies can find honey to gather, why do the other 28 colonies take it so easy? They work some, and all except this second swarm have sections over the brood-chamber, and plenty in which to store all they could gather, though ever so energetic. I remove all of the sections as soon as capped, and new ones, with starters of natural combs, put on; and if there should be a few uncapped sections at the outside of the honey-rack (I use the Langstroth hive), I return them in the new rack to be filled and finished. I never tier them up, but remove and re crate them for surplus, using two-pound nailed sections. Some of my colonies, of apparent equal strength, will store double the surplus honey of one setting close by its side. I do not understand why. Reasoning from cause to effect, there is a why, and bee-men whom we (beginners) look to as "the wise men of the East," ought to give us a satisfactory explanation. Mrs. Harrison says: "No good bee-keeper of the present day allows his bees to hang out and not work." I have seen a good many such cases this summer, and generally in box hives, though not always. What is to be done to such or with such bees to get them to work? They will not swarm nor work in boxes, but some store honey outside of the hive under the bottom-board, or against some building near which the hive is. Would you consider 50 pounds per colony, spring count, a reasonably good average? For profit, would you run bees for comb or extracted honey, or both? If both, when do you begin to extract? Would you extract surplus or section honey, or both? If extracting were done after basswood, and the bees did not fill up the combs again, what would you winter them on?

T. F. KINSEL.

Shiloh, O., July 14, 1884.

ANSWER.—Your questions are all pertinent to success in our business; and I will answer them in the best way I can. The great difference in the working of these two colonies, compared with the rest, proves too much to be accounted for by traits of the bees. It seems likely that they have found, by accident, some reservoir of nectar or honey, that the other colonies have not found. We know there is an appreciable difference in the honey-storing powers in different strains and colonies of bees—one great enough that one colony of apparently the same strength, condition, and opportunities, will store twice as much surplus as another; and this difference is based upon mental and physical characteristics

which it is worth while to breed from. But when we see such a radical difference as nothing on the one hand, and lively storing on the other, we can hardly account for it entirely upon characteristics. When Mrs. Harrison says, "No good bee-keeper of the present day allows his bees to hang out and not work," she undoubtedly means when there is work to be done. No matter how good the bee-keeper or his bees are, when there comes a sudden cessation of honey flow, strong colonies will lay outside the hive in festoons, when the weather is excessively warm. This is, no doubt, best.

They will, however, build no comb outside the hives. When bees do this outside work, you may rest assured that they have not sufficient inside room in proper communication with the brood department. Whether 50 pounds per colony, spring count, is a reasonably good average or not, depends upon whether it is comb or extracted honey, how much capital and labor is expended, how good the season, etc. Whether it is satisfactory to the producer or not, only each individual producer is the proper one to judge. Whether I would run colonies of bees for comb or extracted honey, would depend entirely whether my apiary was at home or abroad; whether situated in a climate especially adapted to comb building or not; whether I wished to keep strictly pure Italian bees or not; or whether my market was general or local. In Northern Michigan, especially in an apiary away from home (an out apiary), I would produce extracted honey. In any locality where the honey is mostly dark, I would produce extracted honey. In a location where I was forced to ship my production great distances, I should for that reason favor the production of extracted honey. I should never produce but one kind in one apiary, unless the local trade consumed my crop, then I would not if I had more than one apiary. I should begin to extract as soon as the stored honey is thoroughly ripened—say when it is from $\frac{1}{2}$ to $\frac{3}{4}$ capped over; much depending on the condition of the atmosphere and stage of development of the blossoms from which it is gathered. I should never extract from sections, but from full-sized Langstroth frame, from a super above the same size of the brood-chamber, always using the two-story system. In a small apiary where you have plenty of time, and are running for comb honey entirely, you can often advantageously extract some honey from the side brood-combs, near the close of an excessive flow, with which to supply a small local trade. I am always glad to have my bees come out in the fall without sufficient stores to winter on; but not if caused by a dearth, but by such management as has placed the honey in the surplus receptacles, and upon the market; which condition of things allows me to feed sugar syrup without first having to go through the trying ordeal of extracting their honey after all gathering is past, when bees are inclined to rob and be cross.

Honey and Beeswax Market.OFFICE OF THE AMERICAN BEE JOURNAL.
Monday, 10 a. m., July 21, 1884.

The following are the latest quotations for honey and beeswax received up to this hour:

CINCINNATI.

HONEY.—The honey harvest is now virtually over, in this part of the country, and the yield is below the average of former years. The average, per colony, in Ohio and Indiana is, perhaps, 30 to 40 lbs.; in Kentucky it may come up to 100 to 110 lbs. per colony. I can only speak from observations obtained so far, and my figures may not be entirely reliable. Sugar being cheaper than it has been, perhaps, for the last 20 years, we cannot expect honey to be high; but there was a short crop, and it would be my advice to bee-keepers not to be in too much of a hurry to dispose of their product. The demand for extracted honey is fair, and to all appearances, gradually improving. It brings 6¢ per pound on arrival. There is a small demand for comb honey, but we had small offers only, and a good deal could be sold. It brings 14¢ per pound on arrival.
BEESWAX.—Offerings plentiful at 30¢/32¢ on arrival. C. F. MUTH, Freeman & Central Ave.

NEW YORK.

HONEY.—Present sales of comb honey are slow and will be until the new crop arrives. We quote: Fancy white 2-lb. sections, glassed, 13¢/14¢; fair to good in 2-lb. sections, glassed, 11¢/13¢; dark grades in 2-lb. sections, glassed, 10¢/12¢. No 1-lb. in this market. Extracted, white, 9¢/10¢; dark and buckwheat, 7¢/8¢.
BEESWAX.—Prime yellow, 34¢/35¢.
MCCAUL & HILDRETH, 34 Hudson St.

BOSTON.

HONEY.—The sale of honey is almost over, and we are obliged to sell 2-lb. combs for 15¢, and 2½-lb. to 2¼-lb. from 10¢/12¢. No 1-lb. in the market. Extracted, 8¢/10¢.
BEESWAX.—35¢.
BLAKE & RIPLEY, 57 Chatham Street.

CHICAGO.

HONEY.—This week we have had liberal receipts of comb honey, and the prices are irregular. As a rule, the honey is of first quality, and put up in good shape; a gradual improvement is noted in this respect. Prices range from 14¢/15¢ for the best; occasionally a case sells for more than that, but it is in a retail way. The extracted honey is still sluggish, at nominal prices—6¢/6¢ per pound.
BEESWAX.—Fair receipts; prices 30¢/32¢.
R. A. BURNETT, 161 South Water St.

SAN FRANCISCO.

HONEY.—The market is quiet and weak. There is considerable white extracted on market, thin and watery, and showing a tendency to candy. Some stock cannot be placed much over our inside quotation. Sales of thin and water white have been made at 5¢. In a retail way choice extracted of heavy body is offering at 6¢. White to extra white comb, 14¢/17¢. Dark to good, 10¢/13¢. Extracted, choice to extra white, 5¢/6¢. Dark and candied, 4¢.

BEESWAX.—Wholesale, 27¢/30¢.

STEARNS & SMITH, 423 Front Street.

KANSAS CITY.

HONEY.—No change to note in prices. As predicted in last report, the temporary activity was only accidental, and last week has been dull. Some little new honey is now arriving, but it falls as yet to tempt buyers to any extent. I look, however, for a very large demand a little later, and would suggest shipment by Aug. 1, of all that is ready in quantities to justify. I have still a few more "Suggestions on Packing and Shipping Honey," to mail free on application. I will also furnish shipping scales free to any one desiring to furnish to me.

BEESWAX.—Nominal, at 30¢/35¢.

JEROME TWICHELL, 514 Walnut Street.

ST. LOUIS.

HONEY.—Steady; demand and supply both small. Comb, 12¢/14¢ per lb., and strained and extracted 6¢/6¢.

BEESWAX.—Firm at 32¢/32½¢ for choice.

W. T. ANDERSON & Co., 104 N. 3d Street.

CLEVELAND.

HONEY.—The honey market is fairly active on best white 1 lb. sections at 18¢; 2 lbs. best white not quite so active at 17¢; 1 lb. sections sell quickly on arrival, and often are sold to arrive. Second qualities continue very dull—are hardly salable at any price. Extracted is not wanted.

BEESWAX.—Scarce at 35¢.

A. C. KENDEL, 115 Ontario Street.

SAN FRANCISCO.

HONEY.—We quote comb honey in 2 lb. sections 17¢/18¢; extracted, 7¢/8¢.

GEO. W. MEADE & Co., 213 Market St.

Special Notices.

Examine the Date following your name on the wrapper label of this paper; it indicates the end of the month to which you have paid your subscription on the BEE JOURNAL.

For safety, when sending money to this office get either a post office or express money order, a bank draft on New York or Chicago, or register the letter. Postage stamps of any kind may be sent for amounts less than one dollar. Local checks are subject to a discount of 25 cents at Chicago banks. American Express money orders for \$5, or less, can be obtained for 5 cents.

We wish to impress upon every one the necessity of being very specific, and carefully to state what they desire for the money sent. Also, if they live near one post office, and get their mail at another, be sure to give us the address we already have on our books.

When writing to this office on business, our correspondents should not write anything for publication on the same sheet of paper, unless it can be torn apart without interfering with either portion of the letter. The editorial and business departments are separate and distinct, and when the business is mixed up with items for publication it often causes confusion. They may both be sent in one envelope but on separate pieces of paper.

It must be understood that, should an advertiser desire to cancel an unexpired contract, he can do so only by paying regular rates for the number of insertions his advertisement has had.

All money orders from foreign countries, should be made payable at Chicago, as the "Madison Street Station" is not an International office.

In reply to many correspondents let us say that we take any kind of postage stamps at their face value—including the 3 cent ones. Silver should never be sent by mail, as it endangers the loss of the letter either by thieves, or else breaks through the envelope and is lost in that way.

We carefully mail the BEE JOURNAL to every subscriber, but should any be lost in the mails we will cheerfully send another, if notified before all the edition is exhausted.

We now club the *British Bee Journal* and our Monthly for \$2.50, or it and the Weekly for \$3.50.

Apiary Register—New Edition.

All who intend to be systematic in their work in the apiary, should get a copy and commence to use it. The prices will hereafter be as follows:

For 50 colonies (120 pages).....\$1 00
 " 100 colonies (220 pages)..... 1 25
 " 200 colonies (420 pages)..... 1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable ones.

GETTING UP CLUBS.

To increase the number of readers of the BEE JOURNAL, we believe, will aid progressive bee-culture and help to elevate the pursuit. We, therefore, offer the following premiums for getting up clubs:

While no subscription to the BEE JOURNAL will be taken for less than the regular advertised prices (viz.: Weekly, \$2.00; Monthly, \$1.00),—any one getting up a club of two copies, or more, may select from "OUR BOOK LIST" anything therein named, to the amount of 15 cents for every dollar they send direct to this office, to pay them for the trouble of getting up the club; and these books will be sent, postpaid, to any address desired.

For a club of 3 Weekly or 6 Monthly and \$6.00, we will make an additional present of a Pocket Dictionary, bound in cloth, containing 320 pages.

For a club of 5 Weekly or 10 Monthly, (or a mixed club of both,) with \$10, we will, in addition to the 15 per cent, present a copy of the AMERICAN "POPULAR" DICTIONARY, comprising every word in the English language that enters into speech or writing; it contains 32,000 words and phrases, 670 illustrations and 512 pages; it is nicely bound in cloth, and will be sent by mail, postpaid, to any address desired.

Subscriptions for two or more years for one person, will count the same as each year for a different person.

Dzierzon's new work entitled "Rational Bee-Keeping," we now club with the BEE JOURNAL as follows: The Weekly for one year and the book, bound in cloth, for \$3, or in paper covers for \$2.75. The Monthly BEE JOURNAL and the book, \$1 less than the above prices. It is an imported book, printed in the English language, and the price of the book is \$1.50 bound in paper covers, or \$2.00 when bound in cloth.

For \$2.75 we will supply the Weekly BEE JOURNAL one year, and Dzierzon's Rational Bee-Keeping, in paper covers; or the Monthly BEE JOURNAL and the book for \$1.75. Or, bound in cloth, with Weekly, \$3.00; with the Monthly, \$2.00.

Do not let your numbers of the BEE JOURNAL for 1884 be lost. The best way to preserve them is to procure a binder and put them in. They are very valuable for reference.

Preparation of Honey for the Market, including the production and care of both comb and extracted honey, instructions on the exhibition of bees and honey at Fairs, etc. This is a new 10 cent pamphlet, of 32 pages.

Ribbon Badges, for bee-keepers, on which are printed a large bee in gold, we send for 10 cts. each, or \$8 per 100.

Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.

Create a Local Honey Market.

Now is the time to create Honey Markets in every village, town and city. Wide-awake honey producers should get the Leaflets "Why eat Honey," (only 50 cents per 100) or else the pamphlets on "Honey as Food and Medicine," and scatter them plentifully all over the territory they can supply with honey, and the result will be a demand that will readily take all of their crops at remunerative prices. The prices for "Honey as Food and Medicine" are as follows:

Single copy 5 cts.; per doz., 40 cts.; per hundred, \$2.50. 500 will be sent postpaid for \$10.00; or 1000 for \$15.00. On orders of 100 or more, we will print, if desired, on the cover-page, "Presented by," etc., (giving the name and address of the bee-keeper who scatters them). This alone will pay him for all his trouble and expense—enabling him to dispose of his honey at home, at a good profit.

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

Convention Hand-Book.

It is a nice Pocket Companion for bee-keepers. It is beautifully printed on toned paper, and bound in cloth—price 50 cents.

It contains a copy of a model "Constitution and By-Laws" for the formation of Societies for Bee-Keepers—a simplified manual of Parliamentary Law and Rules of Order for the guidance of officers as well as members, a blank form for making statistical reports—a Programme of questions for discussion at such meetings—model Premium Lists for Fairs which may be contracted or enlarged, and then recommended to the managers of adjacent County or District Fairs—32 blank leaves for jotting down interesting facts, etc.

We have aimed to make it suitable for any locality, and a book that will commend itself to every bee-keeper in the English-speaking world.

We have had some bound in Russia leather, with colored edges—price 60 cents.

We will supply them by the dozen at 25 per cent. discount, post-paid.

Emerson Binders—made especially for the BEE JOURNAL, are lettered in gold on the back, and make a very convenient way of preserving the BEE JOURNAL as fast as received. They will be sent, post-paid, for 75 cents, for the Weekly; or for the Monthly, 50 cents. They cannot be sent by mail to Canada.

Bingham Corner.

MARENGO, ILL., June 18, 1884.
The Doctor Subdues All.—Mr. T. F. BINGHAM, Dear Sir:—I've used the "Doctor" till its all daubed up with bee-glue, and although at first sight I thought I did not like anything so large, I could not now be induced except by the direct poverty, to do with any thing smaller. As a matter of "economy" I much prefer the "Doctor" to any of the cheaper smokers, of which I have worn out several. The "Doctor" has entirely cured me, so that I am now a Bingham man, as my wife always has been. If the somewhat vague remark in your letter means that nothing was charged for the Smoker sent, except the reading of your letter, I shall be very glad of another "Doctor" for the money sent, so that my wife won't take mine from me. Bees just booming on white clover.
 Yours Truly, C. C. MILLER.

WOODARD'S LANDING, Wash. Ter.
The Best Smoker.—TO BINGHAM & HETHERINGTON, Abnoria, Mich., Dear Sirs:—Find enclosed money for 3 Conqueror Smokers, which please send per mail—one to each, Dr. Balch, J. M. Louderback, and H. A. Towner. The Conqueror is the best Smoker I ever used. Respectfully,
 May 17, 1884. H. HASTINGS.

DRESDEN, TEX., May 28, 1884.
Conquer the "Cyps."—T. F. BINGHAM, Abnoria, Mich., Dear Sir:—Enclosed find \$1.75, for which please send, per mail, one "Conqueror Smoker" to Major H. A. High, Waxahachie, Tex. He bought a Cyprian Queen from me, and the Bees have worsted the old gentleman. I told him that the Conqueror Smoker would conquer the "Cyps," as I had tried one for two years, and "it never failed." Respectfully,
 B. F. CARROLL.

BORODINO, N. Y., Aug. 15, 1882.
Cyprians Conquered.—All summer long it has been "which and tother" with me and the Cyprian colony of bees I have—but at last I am "boss." Bingham's Conqueror Smoker did it. If you want lots of smoke just at the right time, get a Conqueror Smoker of Bingham. Respectfully,
 G. M. DOOLITTLE.

Prices, by mail, post-paid.

Doctor smoker (wide shield).....	3¼ inch.....	\$2 00
Conqueror smoker (wide shield).....	3 " " " " " "	1 75
Large smoker (wide shield).....	2¼ " " " " " "	1 50
Extra smoker (wide shield).....	2 " " " " " "	1 25
Plain smoker.....	2 " " " " " "	1 00
Little Wonder smoker.....	1¾ " " " " " "	65
Bingham & Hetherington Honey Knife,	2 inch.....	1 15

TO SELL AGAIN, apply for dozen or half-dozen rates. Address,

T. F. BINGHAM, P. M., or
 BINGHAM & HETHERINGTON,
 ABRONIA, MICH.

Local Convention Directory.

1884.	Time and place of Meeting.
Aug. 6	—Lorain Co., O., at Elyria, O. O. J. Terrell, Sec., North Ridgeville, O.
Aug. 2	—Gibson Co., Tenn., at Trenton, Tenn. T. J. Happell, Sec.
Aug. 13	—Northeastern Ky., at Covington, Ky. G. W. Cree, Sec.
Aug. 19	—N. W. Ill. & S. W. Wis. at L. Highbarger's. J. Stewart, Sec., Rock City, Ill.
Oct. 11, 12	—Northern Mich., at Alma, Mich. F. A. Palmer, Sec., McBride, Mich.
Oct. 15, 16	—Northwestern, at Chicago, Ill. W. Z. Hutchinson, Sec.
Nov. 25	—Western Mich., at Fremont, Mich. Geo. E. Hilton, Sec.
Dec. 3	—Southeastern Mich., at Adrian, Mich. A. M. Gander, Sec.
Dec. 10, 11	—Michigan State, at Lansing. H. D. Cutting, Sec., Clinton, Mich.

✉ In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

Subscription Credits.—We do not acknowledge receipt of each subscription by letter. The label on your paper, or on the wrapper shows the date to which your subscription is paid. When you send us money, if the proper credit is not given you, within two weeks thereafter on your label notify us by postal card. Do not wait for months or years, and then claim a mistake. The subscription is paid to the end of the month indicated on the wrapper-label. This gives a continual statement of account.

For Rent. My Apiary of 100 colonies of Bees, including a house and one acre of land, shop, honey-house, etc. Also, Bees and Honey for Sale. For terms, address
 R. S. HECKTELL, Three Oaks, Mich.

Syrian-Albino Queens!

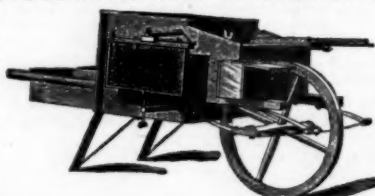
My new Strain **AHEAD** of all. They build beautiful, straight Combs, without Separators, and are **UNEXCELLED** as workers. Reared by Alley's method.

Select-Tested, to breed from.....\$3.00
 Untested.....\$1.00

Address, **DR. G. L. TINKER,**
 30 Atf New Philadelphia, Ohio.

TESTED QUEENS, \$2; untested, \$1; 4-frame Nuclei, \$3.50 and \$4.50. Mississippi Wax Extractor, \$3. OSCAR F. BLEDSOE, Grenada, Miss. 21C124

SYSTEMATIC AND CONVENIENT.



DAVIS' PATENT HONEY CARRIAGE,
 REVOLVING COMB-HANGER,
 Tool Box and Recording Desk Combined.

Price, complete, only.....\$18.00.

For Sale by
ALFRED H. NEWMAN,
 923 West Madison Street, CHICAGO, ILL.

QUEENS!

BY RETURN MAIL,

FROM OUR NEW STRAINS OF
 ITALIAN AND ALBINO BEES.

We are happy to announce to the bee-keeping public that we are now prepared to send you **QUEENS** on short notice, at the following low rates:

Untested, each.....	\$ 1.00
" per ¼ dozen.....	5.50
" per dozen.....	10.00
Warranted, each.....	1.10
" per ¼ dozen.....	6.00
" per dozen.....	11.00
Tested, each.....	2.00
Select Tested, each.....	2.50

Send for our descriptive Price-List and see what our customers say of our goods.

Address, **WM. W. CARY & SON,**
 COLERAIN, MASS.
 (The oldest breeders of Italian Bees in America.)
 28 Atf

ALFRED H. NEWMAN,

Dealer in all kinds of

APIARIAN SUPPLIES,

AND

HONEY AND BEESWAX,

923 West Madison Street,

CHICAGO, ILL.

MY ILLUSTRATED CATALOGUE
 sent FREE upon application.

COMB FOUNDATION.

On account of the prevailing scarcity of beeswax the price of comb foundation is now advanced 5 cents per pound above the price quoted in my Catalogue for 1884. Prices same as Dadant's.

BEESWAX.

I pay 30c. per pound delivered here, for yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

DR. FOOTE'S

HAND BOOK OF HEALTH,

HINTS AND READY RECIPES,

is the title of a very valuable book that gives a great amount of information, of the utmost importance to everybody, concerning their daily habits of Eating, Drinking, Dressing, Sleeping, Bathing, Working, etc.

It Costs only **TWENTY-FIVE CENTS**, and contains 28 pages, and is sent by mail, post-paid, on receipt of price. This is just the Book that every family should have.

IT TELLS ABOUT

What to Eat,	Parasites of the Skin,
How to Eat it,	Bathing—Best way,
Things to Do,	Lungs & Lung Diseases,
Things to Avoid,	How to Avoid them,
Perils of Summer,	Clothing—what to Wear,
How to Breathe,	How much to Wear,
Overheating Houses,	Contagious Diseases,
Ventilation,	How to Avoid them,
Influence of Plants,	Exercises,
Occupation for Invalids,	Care of Teeth,
Superfluous Hair,	After-Dinner Naps,
Restoring the Drowned,	Headache, cause &
Preventing Near-Sight-	Malaria! Affections,
edness,	Croup—to Prevent.

IT TELLS HOW TO CURE

Black Eyes, Boils, Burns, Chills, Cold Feet, Corns, Coughs, Cholera, Diarrhoea, Diphtheria, Dysentery, Dandruff, Dyspepsia, Ear Ache, Felons, Fetid Feet, Freckles, Headache, Hiccough, Hives, Hoarseness, Itching, Inflamed Breasts, Ivy Poisoning, Moles, Pimples, Piles, Rheumatism, Ringworm, Snoring, Stammering, Sore Eyes, Sore Mouth, Sore Nipples, Sore Throat, Sun-stroke, Stings and Insect Bites, Sweating Feet, Toothache, Ulcers, Warts, Whooping Cough, Worms in Children.

It will Save Doctor Bills!

Price only 25 Cents. Sent by Mail, post-paid, by

THOMAS G. NEWMAN,
 923 West Madison Street, CHICAGO, ILL.

W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.

can furnish pure Italian Queens, reared under the swarming impulse, in his own apiary, at \$1.00 each. Make money orders payable at Flint, Mich. 29Atf

THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER.

The BRITISH BEE JOURNAL is NOW published SEMI-MONTHLY, at Seven Shillings, per annum, and contains the best practical information for the time being, showing what to do, and when and how to do it. **Rev. H. R. FEEL, Editor.**

We send the Weekly AMERICAN BEE JOURNAL and the British Bee Journal, both for \$3.50 a year.

For Bees, Queens.

Honey, Foundation, Hives, Sections, and all Apiarian Implements, send for Circular to

FLANAGAN & ILLINSKI,

1AB1y Lock box 945. Belleville, St. Clair Co., Ills.

HELLO! HELLO!

We are now ready to Book Orders for
Bee-Keepers' Supplies.

White Poplar **SECTIONS** A Specialty.
Dovetailed

Everything fully up with the times, and
At Lowest Figures!

Send stamp for 32-page Catalogue and Samples.

APIARIAN SUPPLY CO.,

7A6m WILTON JUNCTION, IOWA.

\$66 a week at home. \$5.00 outfit free. Pay absolutely sure. No risk. Capital not required. Reader, if you want business at which persons of either sex, young or old, can make great pay all the time they work, with absolute certainty, write for particulars to H. HALLETT & Co., Portland, Maine. 4A1y

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

FLAT-BOTTOM COMB FOUNDATION,



high side-walls, 4 to 16 square feet to the pound. Circular and samples free.

J. VAN DEUSEN & SONS,
Sole Manufacturers,
Sprout Brook, Mont. Co., N. Y.

GOLD

for the working class. Send 10 cents for postage, and we will mail you free, a royal, valuable box of sample goods that will put you in the way of making more money in a few days, than you ever thought possible at any business. Capital not required. We will start you. You can work all the time or in spare time only. The work is universally adapted to both sexes, young and old. You can easily earn from 50 cents to \$5 every evening. That all who want work may test the business, we make this unparalleled offer; to all who are not well satisfied, we will send \$1 to pay for the trouble of writing us. Full particulars, directions, etc., sent free. Fortunes will be made by those who give their whole time to the work. Great success absolutely sure. Don't delay. Start now. Address STINSON & Co., Portland, Maine. 4A1y

LOCAL REPORTERS WANTED.

We want a local reporter in every farming community to furnish us from time to time such facts as we may require. Send 25 cents for credentials and full particulars regarding services and compensation. Address Will C. Turner & Co., Publishers "City and Country," Columbus, Ohio. 24A18t

Muth's Honey Extractor,

Square Glass Honey Jars, Tin Buckets,
Langstroth Bee-Hives, Honey-Sections, etc.

Apply to **C. F. MUTH,**

976 and 978 Central Ave., CINCINNATI, O.
Send 10c. for Practical Hints to Bee-Keepers.



37A1y

AGENTS

wanted for The Lives of all the Presidents of the U. S. The largest, handsomest, best book ever sold for less than twice our price. The fastest selling book in America. Immense profits to agents. All intelligent people want it. Any one can become a successful agent. Terms free. HALLETT Book Co., Portland, Me. 4A1y

ITALIAN QUEENS, DADANT FOUNDATION, and Supplies.—It will pay you to send for Circular. E. F. SMITH, Smyrna, N. Y. 11A1f

ITALIAN QUEENS AND BEES.

Dollar Queens, 90c.; six, \$5.00; twelve, \$9.00. Warranted, \$1.50; tested, \$2.50; selected, 25 cents extra. Warranted pure. Order now and get choice Queens. Send money by P. O. Order. Registered Letter, or American Express.
27A1f **N. F. ASHTON, Davenport, Iowa.**



BUY AN ESTEY ORGAN

The Best in the World. 150,000 already made. In buying of us or through our Agent, you deal direct with the manufacturer. Write for Catalogue of **ESTEY and CAMP & CO. ORGANS, Decker Bros., Mathushek, Simpson, Estey & Camp, and Camp & Co. PIANOS. AGENTS WANTED.**

ESTEY & CAMP,
188 and 190 State St., CHICAGO.

DOUGHERTY & McKEE,

Indianapolis, Ind.,

Manufacturers of and Dealers in **BEE-KEEPERS' SUPPLIES and HONEY.** Langstroth HIVES a Specialty. Dadant's Foundation, Bingham Smokers, Wired frames and Foundation from the Given Press, Sections, Extractors and Honey Jars. Send for our **Price List.** 14A26t

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

NEW AND USEFUL Articles for the Apiary

Send for our 16-page illustrated Circular. 18A1f **HENRY ALLEY, Wenham, Mass.**

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Eureka Wiring Tool,

For pressing Foundation into wired frames. Something entirely new. Price, 50c. by mail; 40c. by express.

Vandervort Foundation Mill.

6 Inch, Price, \$25.00.

It makes the finest extra thin Foundation for comb honey. For Sale by

ALFRED H. NEWMAN.

923 West Madison Street, CHICAGO, ILL.

WE CALL

the attention of all wanting A No. 1 BEES, Italian, Cyprian or Hybrids, to the following, from one well-known to the readers of this Paper:

"I have never seen a case of foul brood; my bees are entirely healthy, and have always been so, and are O. K. in every respect."

GEO. B. PETERS, M. D.

We can furnish any number of Colonies of the above Bees, and will warrant safe delivery and satisfaction.

N. B.—No Bees will be sold by us, for any consideration, from any apiary that has ever had a case of foul brood in it. For prices and particulars, send to

FLANAGAN & ILLINSKI,

Lock box 995, Belleville, St. Clair Co., Ills.
18A13t 6B3t

IF YOU WANT —A— VEHICLE,

SEND A POSTAL CARD TO THE

COLUMBUS BUGGY CO.

COLUMBUS, OHIO.

When Catalogue and name of nearest dealer, where our SUPERIOR Vehicles can be seen, will be sent.

We have the LARGEST FACTORY in the world for manufacturing first-class and SUPERIOR

Buggies, Phaetons, Light Carriages, Surrey Wagons,



AND OUR POPULAR

American Village Carts,

the latter most perfect and free from horse motion.

We make our own wheels from the best timber (sawed by our own mills) that can be obtained from the hills of Southern Ohio—famous for the second-growth hickory.

Any of our readers who will inclose 18 cent stamps, in a letter to the COLUMBUS BUGGY Co., Columbus, Ohio, will receive in return a beautiful engraving in colors representing an "Australian Scene," and their manner of traveling in that country with ostriches as a motor. 24A18t

Vandervort Comb Fdn. Mills,

Send for Samples & Reduced Price-List.

At J. VANDERVORT, Laceyville, Pa.

1883. 1884.
HEDDON'S
COLUMN.

BEST GIVEN
COMB FOUNDATION.

Wholesale and Retail.

I now have on hand a freshly-made lot of GIVEN COMB FOUNDATION, made from strictly pure domestic wax, thoroughly cleansed from all impurities. Sizes of brood and surplus, $8\frac{1}{4} \times 16\frac{1}{4}$, or Langstroth size. I have also Dadant's best Brood Foundation of same size; also Dadant's 11x11 for American frames. Send for prices, and state amount wanted. I offer a liberal DISCOUNT to DEALERS.

HEDDON'S LANGSTROTH HIVE.

I believe my Hive is growing in popularity, to a much greater degree, than is the business of bee-keeping. I am now prepared to furnish these hives made up, and in the flat, at very reasonable prices.

One Hive complete for comb honey..\$3.00
(The above will contain two cases complete with sections).

The above Hive complete for extracted honey.....\$3.00
The above Hive complete for both in one 4.50
One Hive in the flat..... 2.00
Five or over, each 1.50

No one should ever order these Hives in the flat, without ordering one made up complete to work by. Parties are advertising Hives as Heddon Hives, that in no wise embrace my principles. Judge only by those purchased from me.

SECTIONS.

I am now ready to furnish white all-Dovetail Sections as follows: $4\frac{1}{4} \times 4\frac{1}{4} \times 6$, 7 and 8 to the foot, per 1,000, \$6.50; $5 \times 6 \times 2$, per 1,000, \$8.00. All shipped from here.

QUEENS!

Our New Strain,

Also IMPORTED ITALIANS!

Take your choice. Prices:

Tested, to breed from.....\$ 3 00
Untested 1 25
Untested, after July 1st..... 1 00
Untested, (per doz.) after July 1st..... 11 00

CIRCULAR for 1884

And be SURE to state whether or not you have my Circular for 1883.

Address,

JAMES HEDDON,
DOWAGIAC, Cass County, MICH.

Sixth Thousand Just Published!
New and Enlarged Edition
OF
BEES and HONEY,

OR THE
Management of an Apiary for Pleasure
and Profit; by

THOMAS G. NEWMAN.

Editor of the Weekly Bee Journal.

925 West Madison Street, Chicago, Ill.

It contains 220 profusely illustrated pages, is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the Honey-Bee, and at the same time produce the most honey in its best and most attractive condition.

Appreciative Notices.

FRIEND NEWMAN:—I acknowledge with pleasure the receipt, this morning, of a very beautiful book, entitled, "Bees and Honey, or, Management of an apiary for Pleasure and Profit; sixth edition, enlarged." The book opens with a kind, familiar face, and the whole subject matter is concise, easy and comprehensive. I read it with much pleasure.
T. F. BINGHAM.

Abronia, Mich., May 1, 1884.

I have received a copy of the revised edition of "Bees and Honey," and after examining the same, find it to be a very handy and useful book of reference on the subject of bees and honey, and believe it should be found in the library of all interested in the study of bees.

H. H. BROWN.

Light Street, Pa., May 8, 1884.

PRICE—Bound in cloth, \$1.00; in paper covers, 75 cents, postpaid.

THOMAS G. NEWMAN,

925 West Madison Street, Chicago, Ills.

A Liberal Discount to Dealers, by the Dozen or Hundred.

BEE-KEEPERS, before ordering your **BEE APIARIAN SUPPLIES,** Send for our large Illustrated Catalogue, sent free to any address.

10A24t **E. KRETCHMER,** Coburg, Iowa.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

Given's Foundation Press.

PUBLIC SENTIMENT affirms that the PRESS is SUPERIOR for making Comb Foundation either in Wired Frames or for SECTIONS, and insures straight and perfect combs, when drawn out by the bees. Send for Circular and samples.

D. S. GIVEN & CO.,

1AB1f HOOPESTON, ILL.

Dadant's Foundation Factory, wholesale and retail. See Advertisement in another column.

A NEW BEE VEIL.



There are five cross bars united by a rivet through their center at the top. These bars are buttoned on to studs on the neck-band. The bars are of best light spring steel; the neck-band of best hard spring brass; the cover is of handsome light material. It is very easily put together, no trouble to put on or take off, and folds compactly in a paper box 6×7 inches by one inch deep. There would be no discomfort in wearing it either day or night, and the protection against Mosquitoes, Flies, Bees, Gnats, etc., is perfect. The weight of the entire Veil being only five ounces.

Price, by Mail or Express, \$1.00.

ALFRED H. NEWMAN,
923 West Madison Street,
CHICAGO, ILLINOIS.

A PRIZE.

Send six cents for postage, and receive free, a costly box of goods which will help you to more money right away than anything else in this world. All of either sex, succeed from first hour. The broad road to fortune opens before the workers, absolutely sure. At once address, TRUE & Co., Augusta, Maine. 4A1y

J. W. ECKMAN,
DEALER IN

Pure Italian Bees and Queens

For further information, send for Circular.

7A1y RICHMOND, Fort Bend Co. TEXAS.

GOLDEN ITALIANS!

I now wish to say to my former customers, that I am now ready to fill orders for the following Queens.

Hybrid in May and June, each.....\$.50
Italian—untested—not warranted, in May and June, each..... 1.00
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